



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

| Kinds of Food-materials.<br><br>( <i>Italics</i> indicate European analyses,<br>the rest are American.) | Water.    | Nutrients. | Nutrients.                     |           |                     |                |
|---|-----------|------------|--------------------------------|-----------|---------------------|----------------|
|   |           |            | Protein<br>(albumin-<br>oids.) | Fats.     | Carbohy-<br>drates. | Ash.           |
| MEATS—Fresh.  | Per cent. | Per cent.  | Per cent.                      | Per cent. | Per cent.           | Per cent.      |
| Beef, side, well fattened.....  | 54.6      | 45.4       | 17.2                           | 27.2      | .....               | 1.0            |
| Beef, lean, nearly free from fat.....   | 76.0      | 24.0       | 21.8                           | 0.9       | .....               | 1.3            |
| Beef, round,* rather lean.....  | 66.7      | 33.3       | 23.0                           | 9.0       | .....               | 1.3            |
| Beef, sirloin,* rather fat.....   | 60.0      | 40.0       | 20.0                           | 19.0      | .....               | 1.6            |
| Beef, neck,* "second cut".....  | 64.5      | 35.5       | 19.9                           | 14.5      | .....               | 1.1            |
| Beef, liver.....  | 69.5      | 30.5       | 20.1                           | 5.4       | 3.5                 | 1.5            |
| Beef, tongue.....   | 63.5      | 36.5       | 17.4                           | 18.0      | .....               | 1.1            |
| Beef, heart.....  | 56.5      | 43.5       | 16.3                           | 26.2      | .....               | 1.0            |
| Veal, lean.....   | 78.8      | 21.2       | 19.9                           | 0.8       | .....               | (0.5)          |
| Veal, rather fat.....   | 72.3      | 27.7       | 18.9                           | 7.5       | .....               | 1.3            |
| Mutton, side, well fattened.....  | 45.9      | 54.1       | 14.7                           | 38.7      | .....               | 0.7            |
| Mutton, leg.....  | 61.8      | 38.2       | 18.3                           | 19.0      | .....               | 0.9            |
| Mutton, shoulder*.....  | 58.6      | 41.4       | 18.1                           | 22.4      | .....               | 0.9            |
| Mutton, loin (chops).....   | 49.3      | 50.7       | 15.0                           | 35.0      | .....               | 0.7            |
| MEATS—Prepared.   |           |            |                                |           |                     |                |
| Dried beef.....   | 58.6      | 41.4       | 30.3                           | 4.4       | .....               | 6.7            |
| Corned beef, rather lean.....   | 58.1      | 41.9       | 13.3                           | 26.6      | .....               | 2.0            |
| Smoked ham.....   | 41.5      | 58.5       | 16.7                           | 39.1      | .....               | 2.7            |
| Pork, bacon, salted.....  | 19.0      | 99.0       | 3.0                            | 89.5      | .....               | 6.5            |
| FOWL.   |           |            |                                |           |                     |                |
| Chicken, rather lean.....   | 72.2      | 27.8       | 24.4                           | 2.0       | .....               | 1.4            |
| Turkey, medium fatness.....   | 66.2      | 33.8       | 23.8                           | 8.7       | .....               | 1.3            |
| Goose, fat.....   | 38.0      | 62.0       | 15.9                           | 45.6      | .....               | 0.5            |
| DAIRY PRODUCTS, EGGS, ETC.  |           |            |                                |           |                     |                |
| Cow's milk.....   | 87.4      | 12.6       | 3.4                            | 3.8       | 4.8                 | 0.7            |
| Cow's milk, skimmed.....  | 90.7      | 9.3        | 3.1                            | 0.7       | 4.8                 | 0.7            |
| Cow's milk, buttermilk.....   | 93.3      | 9.7        | 4.1                            | 0.9       | 4.0                 | 0.7            |
| Cow's milk, whey.....   | 93.2      | 6.8        | 0.9                            | 0.2       | 5.0                 | 0.7            |
| Cheese, whole milk.....   | 31.2      | 68.8       | 27.1                           | 35.4      | 2.4                 | 3.9            |
| Cheese, skimmed milk.....   | 41.3      | 58.7       | 38.3                           | 6.8       | 9.0                 | 4.6            |
| Butter.....   | 9.0       | 91.0       | 1.0                            | 87.5      | 0.5                 | 2.0            |
| Hen's eggs.....   | 73.1      | 26.9       | 13.4                           | 11.8      | 0.7                 | 1.0            |
| FISH, ETC.  |           |            |                                |           |                     |                |
| Flounder, whole.....  | 81.2      | 15.8       | 13.8                           | 0.7       | .....               | 1.3            |
| Haddock, dressed.....   | 81.4      | 18.6       | 17.1                           | 0.3       | .....               | 1.2            |
| Bluefish, dressed.....  | 78.5      | 21.5       | 19.0                           | 1.2       | .....               | 1.3            |
| Cod, dressed.....   | 82.6      | 17.4       | 15.8                           | 0.4       | .....               | 1.2            |
| Whitefish, whole.....   | 69.8      | 30.2       | 22.1                           | 6.5       | .....               | 1.6            |
| Shad, whole.....  | 70.6      | 29.4       | 18.5                           | 9.5       | .....               | 1.4            |
| Mackerel, average, whole.....   | 71.6      | 28.4       | 18.8                           | 8.2       | .....               | 1.4            |
| Salmon, whole.....  | 63.6      | 36.4       | 21.6                           | 13.4      | .....               | 1.4            |
| Salt cod.....   | 53.8      | 26.1       | 21.7                           | 0.3       | .....               | Salt, 20.1 4.1 |
| Smoked herring.....   | 34.5      | 53.8       | 36.4                           | 15.8      | .....               | 11.7 1.6       |
| Salt mackerel.....  | 42.2      | 47.2       | 22.1                           | 22.6      | .....               | 10.6 2.5       |
| Oysters.....  | 87.2      | 12.8       | 6.0                            | 1.2       | 3.6                 | 2.0            |
| Scallops.....   | 89.3      | 19.7       | 14.7                           | 0.2       | 3.4                 | 1.4            |

# Annual report of the Bureau of Labor and Industrial Statistics

Michigan. Bureau of Labor and  
Industrial Statistics



~~From 82961~~

23



Harvard College Library

FROM

*6 V. R. Pond, bound.*

*Lansing, Mich.*

*1 Sept., 1886.*

Complete Set Deposited  
in Littauer Center

APR 11 1941

**LITTAUER LIBRARY, SSP  
HARVARD UNIVERSITY**



**LITTAUER LIBRARY, SSP  
HARVARD UNIVERSITY**



THIRD ANNUAL REPORT  
OF THE  
*Michigan*  
BUREAU OF LABOR  
AND  
INDUSTRIAL STATISTICS.

FEBRUARY 1, 1886.

---



---

---

MICHIGAN.

---

---

LANSING:  
THORP & GODFREY, STATE PRINTERS AND BINDERS.  
1886.

~~77-2699~~  
~~Ex-8296-1~~

38

1847-1848

1849-1850

1851-1852

1853-1854

**Complete Set Deposited  
in Littauer Center**

**APR 11 1941**

# TABLE OF CONTENTS.

---

|   | PAGE.   |
|---|---------|
| LETTER OF TRANSMITTAL.....  | ix      |
| PART I.—NATIONAL MEETING OF CHIEFS AND COMMISSIONERS.....                 | 1-81    |
| PART II.—STRIKES IN MICHIGAN.....   | 83-124  |
| PART III.—TESTIMONY OF WAGE-WORKERS.....                                  | 135-172 |
| PART IV.—WAGES AND WAGE-EARNERS.....                                      | 173-401 |
| CHAPTER I.—FARM LABOR.....  | 173-191 |
| CHAPTER II.—RAILROAD EMPLOYÉS.....  | 191-213 |
| CHAPTER III.—MANUFACTURING AND OTHER BUSINESS INTERESTS OF THE STATE..... | 214-401 |

---

## ERRATA.

- Page 94. First line should read "on Monday, the 6th inst.," instead of Monday last, the 6th inst.
- Page 187. Fourth line from bottom read "countries" instead of counties.
- Page 220. Average total hours omitted, should be 10 hours, 8 minutes.
- Page 221. Under heading "Paid part in store orders," the total for the State should be 375, instead of 610; total females, 5, instead of 45; total males, 370 instead of 565.
- Pages 383 and 384. The column headed "Average daily wages" in Table No. 38, should read "Average weekly wages."





# INDEX.

---

|   | PAGE.         |
|---|---------------|
| Letter of transmittal.....  | ix            |
| <b>PART I.—NATIONAL MEETING OF CHIEFS AND COMMISSIONERS.....</b>  | <b>1-81</b>   |
| The Influence of Inventions upon Civilization. Paper by Mr. Chauncey Smith.....   | 6             |
| The Statistics of Consumption. Paper by Mr. Edward Atkinson .....   | 24            |
| The Chemistry and Economy of Foods. Paper by Prof. W. O. Atwater.....   | 42            |
| Later research in the science of food and nutrition.....  | 43            |
| How our food supplies the wants of our bodies.....  | 44            |
| How the nutritive ingredients of the food nourish the body.....   | 47            |
| Constituents of sample of beef, sirloin.....  | 48            |
| Table I.—Composition of animal foods (edible portion).....  | 49            |
| Table II.—Composition of animal foods (including edible portion and refuse).....  | 50            |
| Table III.—Constituents of vegetable foods and beverages.....   | 51            |
| Digestibility of foods.....   | 53            |
| Percentages of undigested matters in food materials.....  | 54            |
| Costs of protein.....   | 55            |
| Comparative cost of protein in food materials.....  | 56            |
| Amounts of nutrients obtained for twenty-five cents in different food materials.....  | 57            |
| Standards for daily rations.....  | 59            |
| Examples of German rations.....   | 60            |
| Dietary for a family for two weeks.....   | 60            |
| Nutrients in daily ration.....  | 61            |
| Bill of fare for fourteen days.....   | 61            |
| Breakfast and lunch.....  | 62            |
| Bill of fare for dinner and supper for fourteen days.....   | 63            |
| Rations of common food materials estimated to contain the amounts of nutritive ingredients in the standard ration, with cost of each..... | 67            |
| A.—Daily rations costing 12 cents or less.....  | 68            |
| B.—Daily rations costing from 12 to 15 cents.....   | 69            |
| C.—Daily rations costing from 15 to 20 cents.....   | 70            |
| D.—Daily rations costing from 20 to 45 cents.....   | 71            |
| The Work of the U. S. Bureau of Labor. Address by Hon. Carroll D. Wright.....   | 73            |
| <b>PART II.—RELATING TO STRIKES IN MICHIGAN.....</b>  | <b>83-134</b> |
| Strikes.....  | 85            |
| At Cheboygan. "Rivermen's Strike".....  | 85            |
| At Detroit. "Pingree & Smith Strike".....   | 85            |
| At Oscoda. "Longshoremen or Dockwallopers' strike".....   | 88            |
| At Marquette. Union and non-union trouble.....  | 88            |
| At Springwells. "Brickmakers' strike".....  | 89            |
| At Lansing. Strike of trench diggers.....   | 92            |
| At Bay City and Saginaw. "Saginaw valley strike".....   | 92            |
| Statement of W. B. Rouse, mill owner.....   | 93            |
| Statement of Martin Brennan, Sheriff of Bay county.....   | 94            |
| Statement of Chief of Police Mower of East Saginaw.....   | 97            |
| Statement of Captain Walsh, East Saginaw Police.....  | 97            |

|  | PAGE           |
|--|----------------|
| Statement of Angus McIntyre, Sheriff of Saginaw county.....  | 98             |
| Statement of Hon. C. L. Benjamin, Mayor of Saginaw City.....   | 100            |
| Opinions of workingmen.....  | 101            |
| Efforts to resume work.....  | 106            |
| The result.....  | 108            |
| Effect upon mill owners.....   | 109            |
| Wages paid at time of strike.....  | 110            |
| Table No. 1.—Showing names of mill owners and number of employes of 77 mills and 58 salt-blocks affected by the strike.....  | 111            |
| Table No. 2.—Showing number at each occupation and each given rate of wages; the total number and average wages at each occupation in 77 saw and shingle mills....                         | 112            |
| Table No. 3.—Showing the number of boys at each occupation, their given rate of wages and average wages, in 77 saw and shingle mills.....  | 120            |
| Table No. 4.—Showing the number of coopers, stavemen and men in 58 salt-blocks, their given rate of wages and average wages.....   | 121            |
| Table No. 5.—Showing the number of boys employed as coopers, stave and heading boys in 58 salt-blocks, their given rate of wages and average wages.....                                    | 123            |
| Table No. 6.—Showing the total number of persons working for each given rate of wages in 77 mills and 58 salt-blocks affected by the strike.....   | 124            |
| Table No. 7.—Summary of the canvass of 77 mills and 58 salt-blocks affected by the strike.....   | 125            |
| At Muskegon. Shingle mill strike.....  | 125            |
| Other strikes.....   | 126            |
| Opinions and conclusions upon subjects pertaining to strikes.....  | 126            |
| Cost of strikes.....   | 129            |
| The ten-hour law and contracts.....  | 130            |
| Strikes and arbitration.....   | 132            |
| <b>PART III.—TESTIMONY OF WAGE-WORKERS.....</b>  | <b>135-172</b> |
| Notice to wage-workers.....  | 137            |
| Inquiries.....   | 139            |
| Answers to inquiries.....  | 140            |
| Table No. 8.—Showing States and countries of birth of 535 wage-workers living in 71 counties of Michigan.....  | 141            |
| Table No. 9.—Showing the wages and number receiving the same in detail.....  | 142            |
| Table No. 10.—Showing hours per day and days per week worked.....  | 143            |
| Table No. 11.—Showing the occupations of those who report working over ten hours per day.....  | 144            |
| Table No. 12.—Showing the hours being worked by those who desire them reduced....  | 146            |
| Table No. 13.—Showing the rents paid in detail and average rent.....   | 153            |
| Reports on value of homes, amount of mortgages and rate of interest on mortgages..   | 153            |
| Views of workingmen.....   | 155            |
| Table No. 14.—Showing average retail prices paid for commodities in 69 counties and in the State.....  | 167            |
| <b>PART IV.—WAGES AND WAGE-EARNERS.....</b>  | <b>173-401</b> |
| <b>CHAPTER 1.—Farm Labor. Wages paid for farm labor in Michigan in 1885.....</b>   | <b>175</b>     |
| Table No. 15.—Showing the counties in each Congressional district, the number of towns reporting the wages of farm labor and the number of towns not reporting....                         | 176            |
| Table No. 16.—Showing the highest, lowest and average wages, with and without board, paid farm labor, and the average number of months employed, reported from 610 towns, by counties..... | 177            |
| Table No. 17.—Showing the highest, lowest and average wages, with and without board, paid farm labor, and the average number of months employed in eleven Congressional districts.....     | 180            |
| Statements showing the highest, lowest and average wages, with and without board, paid farm labor, including tenants, and the average months employed.....                                 | 183            |
| Table No. 18.—Showing grand totals for entire State, as made up from supervisors' reports. Wages and time.....   | 185            |

|   | PAGE. |
|---|-------|
| Table No. 19.—Showing the number of farms, with the acres improved and unimproved, in Michigan, as reported for the years 1882, 1883 and 1884.....  | 186   |
| Table No. 20.—Showing the acres sown to wheat, bushels of wheat raised and sheep owned in Michigan in 1880, together with wages in 1885 for farm labor.....   | 186   |
| Table No. 21.—Showing farm wages in Michigan for 1885, and in sixteen foreign countries in 1884.....  | 187   |
| Consular reports, extracts from.....  | 188   |
| CHAPTER 2.—Railroad employes; their number, occupations and wages in Michigan in 1885.....  | 191   |
| Table No. 22.—Showing names of railroads in Michigan, number of employes, occupations and various wages of each road.....   | 193   |
| Table No. 23.—Showing the number of railroad employes in Michigan, their wages in each occupation and average wages by the day or by the month.....   | 194   |
| Table No. 24.—Showing occupations and number working by day or month, with average daily or monthly wages of all employes on 24 railroads.....  | 208   |
| Table No. 25.—Comparison of railroad wages in Michigan with those of foreign countries.....   | 212   |
| CHAPTER 3.—Manufacturing and other business interests of the State.....   | 214   |
| Table No. 26.—Showing the number of towns and wards in each county having or not having industries that pay wages.....  | 218   |
| Table No. 27.—Showing class of industry and number in each class, sanitary condition, number of hours per day, sex of employes, total number of employes, nativity, etc....   | 220   |
| Table No. 28.—Showing the totals by cities and towns of the result of the special canvass of manufacturing industries.....  | 256   |
| Table No. 29.—Showing the totals by industries of the result of the special canvass of manufacturing industries.....  | 260   |
| Table No. 30.—Showing by industries the number of employes receiving given rates of wage and the average wages per day in manufacturing industries.....   | 268   |
| Table No. 31.—Showing the number of employes receiving each given rate of wages and the average wages paid to male and female employes in manufacturing industries.....   | 274   |
| Table No. 32.—Showing wages of employes 16 years of age and under in manufacturing industries.....  | 275   |
| Table No. 33.—Showing work of special canvassers in business interests other than manufacturing.....  | 278   |
| Table No. 34.—Showing the totals by cities and towns of the result of the special canvass of business interests other than manufacturing.....   | 358   |
| Table No. 35.—Showing the result of special canvass of the business interests other than manufacturing, by class of business or occupation, sanitary condition, average hours per day's work, number of employes over and under 16 years, sex, nativity, etc. | 362   |
| Table No. 36.—Showing by occupation the sex and number of employes receiving each given rate of wages and the average wages paid in business other than manufacturing.....  | 370   |
| Table No. 37.—Summary of Table No. 36.....  | 382   |
| Table No. 38.—Showing by occupation the sex and number of employes 16 years of age and under receiving each given rate of wages and the average wages paid in business other than manufacturing.....  | 383   |
| Summary of special canvass of business interests other than manufacturing.....  | 388   |
| Table No. 39.—Showing result of supervisors' work as to manufacturing industries....  | 389   |
| Table No. 40.—Showing by counties the number of cities and towns in the State to which blanks were sent, the number reporting manufacturing industries, number of industries, number of male and female employes, highest and lowest wages, etc.....          | 394   |
| Table No. 41.—Showing the reports of supervisors of the business interests other than manufacturing, number of business houses, male and female employes, etc.....  | 396   |
| Table No. 42.—Showing by counties the number of business houses other than manufacturing, number and sex of employes, married and single, over and under 16 years, nativity, wages, and average hours worked, reported by supervisors.....                    | 400   |



# STATE OF MICHIGAN.

---

BUREAU OF LABOR AND INDUSTRIAL STATISTICS. }  
Lansing, Mich., February 1, 1886. }

HON. RUSSELL A. ALGER, *Governor of Michigan* :

DEAR SIR :—Herewith I have the honor to transmit the third annual report of the result of the work of this Bureau for the ten months commencing April 1, 1885, and ending February 1, 1886.

Upon assuming the duties of Commissioner of Labor, March 1, 1885,—a position to which I was unexpectedly called by you—I found the annual report of my predecessor not fully completed, and therefore requested Hon. John Devlin, Deputy Commissioner, to remain and complete a work with which he was most conversant. That report was given to the public April 1, 1885. From this date my work upon this report has its commencement.

Believing that so much of the second annual report as related to wage-earners and wages should be carried to such a completion as would, so far as it were possible to do, cover reports from the whole State, the work of the year was planned to that end. In performing the work embodied in this report, the rule has been to adhere strictly to securing present facts, therefore the tabular part of the report will be found to contain figures given to the Bureau in and pertaining to the year 1885, while all other matter is of a like recent date.

Part I gives the report of the Secretary of the National Convention of Chiefs and Commissioners of Labor, held at Boston in July, 1885.

Part II relates to the various strikes that have occurred in this commonwealth between the dates of March 1 and December 1, 1885, so far as they have come to my knowledge. A result of investigations as to the causes of these strikes is the conclusion that arbitration is the great remedial agent necessary to settle all differences of moment which may arise between employer and employé.

Part III is devoted to the testimony of wage-workers, and will, I believe, be found to be an instructive chapter. The facts therein contained were gained from the wage-worker direct. The Hon. Carroll D. Wright, Chief of the Labor Bureau of Massachusetts, and also Commissioner of the National Bureau of Labor, a gentleman whose experience in collecting statistics relating to Labor is greater, probably, than that of any other man in our country, in 1878 formulated a series of questions, which were sent to about 5,000 wage-workers in Massachusetts. The result of Col. Wright's work in that direction was to him unsatisfactory, in that less than 300 persons answered his questions. Believing that the plan of reaching the workingman in his home and securing, if possible, from his own pen certain facts connected with his daily life and such views upon the subject of labor as he might be willing to give, was a proper one to try in Michigan, I acted upon the thought which actuated Col. Wright in 1878, and feel that the work was not at all in vain. Having 1,078 addresses of workingmen in all parts of the State, there was received from 553 of that number replies to our inquiries.

Part IV is divided into three chapters. Chapter I relates solely to "farm labor," and furnishes statistics as to wages paid, reported from 613 towns and 2,452 persons. A comparison of wages paid in Michigan for various kinds of farm labor with those paid in several foreign countries is an interesting feature of this chapter. Chapter II of Part IV is devoted entirely to giving the number of employés of each occupation and the specific wage paid each class of labor by the twenty-four railroads operating in Michigan. This report is the more valuable because each road reported in detail the number of employés of each occupation and the actual (not average) wages paid each hand.

Chapter III of Part IV is made up of reports from all but 77 towns in our State out of a total of 1,274 towns and wards addressed or canvassed.

The object sought to be gained in the work which makes up this chapter, was to ascertain the number of employés in the several industries of the State other than farm and railroad workers and officials; also to gain, so far as possible, the various wages paid and answers to questions which are found in the tables of the chapter. The result of this work leads to the conclusion that supervisors of towns or assessors of wards in cities are not always to be depended upon to do the work of collecting statistics for the Bureau of Labor, unless the law governing the Bureau shall be so amended as to provide a compensation for the work performed, and even then the public hesitate to impart information to these officials that would be valuable to the Bureau and could be secured by special canvassers in many instances.

By means, however, of canvassers and supervisors, and, in a few instances, the service of postmasters, I have been enabled to show a canvass covering 114,500 employés, of which number 1,336 were reported as engaged in rail-roading, as shown in table No. 41. This same number of 1,336 were also reported by the railroad companies and are included in the 18,518 of their employés, and should be deducted from the grand total of 133,045, as shown on page 217, thus making the report to cover 131,709 employés reached in the ten months work.

It has not been thought best to take up several subjects and partially cover the ground to which they pertain, but to complete, if possible, each subject. This I have tried to do in this year's work, so far as relates to wage-earners and wages. I propose for the coming year to investigate the subjects of child labor and prison labor.

While I feel greatly indebted to the press of the State, the various officials upon whom I have been obliged to call for service, and all the clerks and canvassers of the Bureau, for the generous and able manner in which they have aided me in the prosecution of the work, herein shown, I desire to make especial reference to the very able assistance rendered me by the Deputy Commissioner, Hon. F. B. Egan, and the Secretary of the Bureau, Hon. F. O. Gullifer. Mr. Egan, taking the position of Deputy August 1, 1885, was at once assigned to duty superintending the canvass of Wayne county, and though very much embarrassed by the numerous refusals of employers to grant him the information sought after, most efficiently performed the work before him. Mr. Gullifer, who has been with the Bureau since March 1, 1885, has, by his earnest effort to make the work valuable to the public in accuracy of clerical labor, proven a most valuable assistant. In conclusion, I have to suggest that if the Commissioner were permitted to issue reports of his labors in chapter size and pamphlet form as the chapters upon various subjects were concluded, and in such numbers that employers and employés might be able to obtain them to a considerable extent, then those who are most interested in the work of the Bureau could obtain such information as they desire and the Bureau be found able to give. The cost to the State of such a plan of issuing reports would not be greatly increased over the present plan of publishing,

I am, sir, very truly yours,

C. V. R. POND, *Commissioner.*





---

---

PART I.

---

NATIONAL MEETING

OF

CHIEFS AND COMMISSIONERS

OF

BUREAUS OF STATISTICS OF LABOR

IN THE

UNITED STATES,

HELD AT

BOSTON, MASS., JUNE 29, 30, AND JULY 1, 1885.

---

---



## PART I.

# NATIONAL MEETING OF CHIEFS AND COMMISSIONERS, 1885.

---

The annual meeting of the Chiefs and Commissioners of Labor Bureaus held at Boston, Mass., in June and July, 1885, was of such an interesting and beneficial character that we feel warranted in giving with this report the proceedings as published by the Secretary, omitting, because of length, one or two interesting papers that were read to the convention.

### THE PROCEEDINGS.

The third annual convention of the Chiefs and Commissioners of the several Bureaus of Labor Statistics in the United States was held in Boston, Massachusetts, beginning June 29, 1885.

The representatives from the different States having assembled at the rooms of the Massachusetts Bureau of Statistics of Labor in Commonwealth Building, the meeting was called to order by the Hon. Carroll D. Wright, Chief of that Bureau, and Commissioner of the Bureau of Labor at Washington, D. C., who stated that the absence of the President of the convention, Mr. Newman, of Missouri, and of the Secretary, Mr. Luskey, of Ohio, was owing to political changes which had taken place in the administration of their respective States, which had resulted in their retirement from the bureaus of those States, and the assignment of others to their places. He held in his hand letters of resignation from both gentlemen, and a request from Mr. Newman that he (Mr. Wright) would call the present convention together, and attend to the other duties of President until the election of Mr. Newman's successor.

This he had done, and now proposed the election of officers to fill the two vacancies.

On motion of Mr. Hutchins, of Iowa, Mr. Wright was made temporary presiding officer; and upon the motion of Mr. Peck, of New York, Mr. Lord, of Illinois, was made temporary secretary.

Upon calling the roll of those States in which Bureaus of Labor Statistics have been established, the following bureaus were found to be represented by the following persons:

*Bureau of Labor, Washington, D. C.*—CARROLL D. WRIGHT, Commissioner.

*Bureau of Statistics of Labor, of Massachusetts*—CARROLL D. WRIGHT, Chief.

*Bureau of Industrial Statistics, of Pennsylvania*—JOEL B. McCAMANT, Chief.

*Bureau of Labor Statistics, of Ohio*—L. McHUGH, Commissioner.

*Bureau of Statistics of Labor and Industries, of New Jersey*—JAMES BISHOP, Chief.

*Bureau of Labor Statistics, of Illinois*—JOHN S. LORD, Secretary.

*Bureau of Statistics, of Indiana*—WM. A. PEELLE, JR., Chief.

*Bureau of Labor Statistics, of New York*—CHARLES F. PECK, Commissioner.

*Bureau of Labor Statistics, of California*—JOHN S. ENOS, Commissioner.

*Bureau of Labor and Industrial Statistics, of Michigan*—C. V. R. POND, Commissioner.

*Bureau of Labor Statistics, of Iowa*—E. R. HUTCHINS, Commissioner.

*Bureau of Labor Statistics, of Kansas*—FRANK H. BETTON, Commissioner.

*Bureau of Labor Statistics, of Connecticut*—ARTHUR T. HADLEY, Commissioner.

Those bureaus not represented in convention were :

*Bureau of Labor Statistics and Inspection, of Missouri*—OSCAR KOCHTITZKY, Commissioner.

*Bureau of Labor Statistics, of Wisconsin*—FRANK A. FLOWER, Commissioner.

*Bureau of Statistics of Labor, of Maryland*—THOMAS C. WEEKS, Chief.

The announcement was thereupon made by the Secretary that there were found to be sixteen official bureaus in the country for the collection and presentation of industrial statistics, the officers of thirteen of which were present.

The temporary organization of the convention was then made permanent by a unanimous vote, and the Hon. Carroll D. Wright was declared President, and Mr. John S. Lord, of the Illinois bureau, Secretary of the convention.

The President thereupon briefly addressed the convention, congratulating the members upon the gradual but continuous increase in their numbers. It was sixteen years since the Massachusetts bureau was established, and for three years that bureau was alone in the field. In the course of the ten years succeeding, three other bureaus were established, those of Pennsylvania, New Jersey, and Ohio; but during the last five years eleven other states had undertaken to inform themselves on the condition and needs of their working people, and now the general government had also established a bureau of inquiry with the same end in view. The growth of the sentiment which recognizes the necessity of investigating the industrial and social forces of the country was one of the gratifying signs of the times. He believed that good results had attended these annual conferences of the officers of the labor bureaus, and hoped that the present would prove at least not less interesting and instructive than its predecessors.

After briefly outlining the general order of exercises contemplated by the committee of arrangements, he called the attention of the convention to the necessity of making some provision against possible vacancies in the office of President, which might occur again in the future as in the past, in the intervals between the meetings of the convention.

Motion was thereupon made and carried to so amend section 2 of the rules governing the organization of the convention as to create the office of Vice-President; and to proceed to the election of such officer.

Mr. James Bishop, of New Jersey, having been placed in nomination, was unanimously elected Vice-President of the convention. He acknowledged the

action of the convention with thanks, and expressed the hope that changes in the administration of the labor bureaus might become less frequent. He said no branch of public service required a more complete divorcement from political influences. A man's abilities and fitness for statistical work should be the first consideration in making an appointment, and these having been demonstrated, the matter of the commissioner's personal politics was of the least possible consequence. Bureaus of labor statistics have no partisan mission, and whenever they assume one their usefulness is at an end. He believed, as the character of the work required of men occupying these positions became better understood, removals would become less frequent, and the work of the bureaus more effective.

Mr. McCamant, of Pennsylvania, said he was gratified to state that the Hon. J. Simpson Africa, Secretary of Internal Affairs of the Commonwealth of Pennsylvania, had accompanied him to Boston for the purpose of attending the sessions of the convention, and he moved that he be invited to sit with the convention and join in its deliberations.

The motion of Mr. McCamant was unanimously carried.

The President also announced the presence of Mr. A. Blue, Secretary of the Bureau of Industries for the Province of Ontario, Canada, who had kindly consented to address the convention on the subject of industrial matters in Canada. In behalf of the members he tendered the same courtesies to Mr. Blue.

Upon the suggestion of Mr. Peck, of New York, the proposed duration of the sessions of the convention and the time of final adjournment were taken under consideration.

After some discussion the motion prevailed that the proceedings of the convention be brought to a close at 4 o'clock P. M., on Wednesday, the 1st of July.

The question then arising as to the place at which the next convention should be held, invitations were extended to the members, by Mr. Bishop, of New Jersey, to meet at Trenton; by Mr. Peck, of New York, to meet at Albany; and by Mr. Enos, of California, to meet at San Francisco.

After a general discussion as to the relative advantages of places, and the convenience of members, a ballot was taken resulting in the acceptance by the convention of the invitation of Mr. Bishop to meet next year at Trenton, New Jersey.

The date at which the next convention should be called was then considered, and at the suggestion of Mr. Pond, of Michigan, who thought it might be found inconvenient for some of the members to meet in June, the motion was made and carried that the rule of the convention requiring annual sessions to be held in June of each year should be so amended as to embrace the months of May and July, so that the President should have wider latitude as to the date of calling the convention.

Convention adjourned until 8 o'clock in the evening.

The rules as amended by the foregoing action are as follows—the changes being indicated by italics:

1. The Chiefs and Commissioners of State Bureaus of Statistics of Labor, or of kindred Bureaus or Departments, and the chief officer of a National Bureau of Statistics of Labor, should one be established, shall constitute a National Convention of Chiefs and Commissioners of Bureaus of Statistics of Labor of the United States.

2. The officers of said Convention shall be a President, *Vice-President* and Secretary, and they shall be chosen by ballot at each annual session of the Convention.

3. The Convention shall meet annually *either* in the month of *May, June or July* at

the call of the President, at such place as shall have been selected by the Convention; such selection to be made by ballot.

4. The proceedings of each session of the Convention shall be printed under the direction of the Secretary, and published in pamphlet form; the cost of such publication shall be borne equally by the Bureaus, and each Bureau shall be supplied with twenty-five copies thereof. Extra copies shall be supplied to the various Bureaus at cost.

5. The officers chosen at an annual session of the Convention shall assume their duties at the following session.

6. The parliamentary rules laid down in Cushing's Manual shall govern the deliberations of the Convention.

#### EVENING SESSION—FIRST DAY.

On reassembling in the evening, the President said that arrangements had been made by the committee to supplement such discussions as might arise among the members, with a series of addresses on subjects germane to those under discussion. In carrying out this purpose they had been fortunate enough to enlist the coöperation of several gentlemen of rank in science and letters, who had consented to appear before the convention and present papers on a variety of subjects.

The programme for this evening contemplated an address from Mr. Chauncey Smith, a gentleman of life-long experience and thoughtful observation in matters pertaining to patent appliances. He would speak of the wonders achieved by inventive genius, and how modern life had been broadened and developed under its influence.

Mr. Smith, of Boston, was then presented to the convention, and delivered the following address:

#### THE INFLUENCE OF INVENTIONS UPON CIVILIZATION.

##### PAPER BY MR. CHAUNCEY SMITH.

In Westminster Abbey, that place where England honors her great men with burial, and records their names and achievements, there stands a monument bearing this inscription from the pen of Lord Brougham, who esteemed it one of the greatest honors of his life that he was called upon to record the nation's appreciation of the man in whose honor the monument was erected:

"Not to perpetuate a name  
 Which must endure while the peaceful arts flourish,  
 But to show  
 That mankind have learned to honor those  
 Who best deserve their gratitude,  
 'The King,  
 His Ministers, and many of the Nobles  
 And Commoners of the Realm,  
 Raised this monument to  
 James Watt,  
 Who, directing the force of an original Genius,  
 Early exercised in Philosophic research,  
 'To the improvement of  
 The steam engine,  
 Enlarged the Resources of his Country,  
 Increased the Power of Man,  
 And rose to an eminent place  
 Among the most illustrious followers of science  
 And the real Benefactors of the World."

The world has always paid homage to its distinguished warriors, statesmen, orators, poets, philanthropists, artists, historians, travellers, and to all who have left the impress of their works upon the history of mankind.

It is not until recently, however, that inventors have received a large share of these honors. As a class they hardly had an existence till within a hundred years. Within that time they have risen to the highest place among those who, in the language of the eulogy I have just quoted, best deserve the gratitude of mankind, and by their works they have made greater changes in the face of society, and in the relations of civilized man to the physical world than all the warriors and statesmen who have flourished since the commencement of the Christian era.

I am not unmindful, in making this statement, of the great changes that followed the introduction of the Christian religion, or the advent of Mohammed and the rise of his religion, of the consequences which followed the establishment of great empires like that of Charlemagne, or of the results of geographical discovery, as in the discovery of America, or of the passage to India.

I am well aware of the difficulty of comparing the magnitude or importance of such things, for instance, as the art of printing, the steam-engine, or the railway or telegraph, with a new form of religion or the establishment or overthrow of an empire, or the introduction of new forms of government. One man may attach much higher importance to some of these things than another would do, and a very much higher importance to them at one period of his life than at another.

It may seem absurd to some persons to make any comparison, for instance, between the benefits flowing from the introduction of Sabbath schools and those which have followed the invention of friction matches; between the results due to the invention of spectacles and the consequences which followed the reformation. And yet it is easy to see that each of these things must have had an important influence upon the physical, social, and moral condition of men, upon their habits of thought and of living, and upon their comfort and happiness. There is, therefore, some just relation between the value of these things to men, and it will not be unprofitable to spend a little time in considering how much we owe to inventors for what we have and what we are.

It is my purpose this evening to briefly bring into view, if I can, the service which inventors have rendered the world, and the part which inventions play in the moral and social condition of man. I shall point out in some cases the extreme simplicity of the inventions, in others the wonderful results which have flowed from them.

I shall refer not merely to what are called great inventions, but to some which seem to be very small. I shall very likely speak of nothing with which you are not all more or less familiar, but I may possibly suggest reflections which are interesting but which seldom come to our minds, for the very reason that we are so familiar with the things to which they relate, and I think that I may be able to show that there are no other men to whom the world is so much indebted as to its inventors, no others who so well merit its honors and deserve its gratitude.

We do not often stop to think how little man has or enjoys, that is not the fruit of invention. Things which man has long had we have ceased to think of as inventions, and we are apt to apply that term only to modern things—to things the origin of which we know. Yet it will be hard for any of us to name anything which we use or enjoy which is not an invention, or the subject of an invention, in its adaptation to our use.



The air we breathe and the water we drink are provided by nature. But we drink but very little water except from a cup or vessel of some kind, which is a human invention. Even if we drink from the shell of a gourd, we are using a thing which, in the shape we use it, is a human contrivance, and the contrivances which man has devised for obtaining water and distributing it, have been among the most wonderful and ingenious of any which have occupied the human mind. Bountifully as nature has provided water and placed it within the reach of man, yet we do in fact get or use but little of it except by the aid of inventions.

The air surrounds us at all times, and we cannot help using it if we would; but if we want it either hotter or colder than we find it, we must resort to some invention to gratify our want. If we want it to blow upon us when it is still, we must set it in motion by some contrivance, and fans among other things have been invented for that purpose. A large amount of human ingenuity has been expended upon devices for moving air when we want it moved, upon fans, blowers, and ventilators.

How small a part of our food do we take as animals do, in the form provided by nature, and how very large a share in some form contrived by man! We drink infusions of tea or coffee without thinking that the compounds are human inventions. How large a place the milk of the cow has in the food of man, but how little of it could he have but for a multitude of contrivances! We think of butter as we do of milk, that it is a production of nature; and so it is, but its separation from milk is an invention which has been followed by a host of inventions to effect the separation easier or better.

Sugar is a production of nature, but little known a few hundred years ago. Separated from the plants in which it is formed, it is an invention of man. The savage who first crushed some kernels of wheat between two stones, and separated the mealy interior from the outer skin, invented flour, and the human mind has not yet ceased to be exercised on the subject of its improvement.

Probably the earliest inventions of man had reference to the curing and preparing of food, and the ingenuity of man is exercised even now upon it more eagerly than ever before, and the power of man to produce food has been increased during the last fifty years more than it had been for a thousand years before.

Fifty years ago, a large part of the wheat and other grain raised in this country was cut, a handful at a time, with a sickle, and a man could not, as a rule, reap more than a quarter of an acre a day. An instrument called a cradle was beginning to come into use, and with that a man could reap about two acres.

Within fifty years inventors have given the world the reaping machine, with which a man and two horses will cut from fifteen to twenty acres a day.

Fifty years ago the grain was almost wholly threshed from the straw by pounding it upon a floor with a flail. If I remember correctly, a man sometimes received one bushel in ten for threshing, and from ten to twenty bushels must have been a day's work.

Now a machine will thresh out hundreds of bushels in a day at an expense of a very few cents a bushel.

Inventions have changed the meaning of words. When I was a boy, a reaper was a man who reaped grain with a sickle, and a thresher was one who threshed it with a flail. Now reapers and threshers are machines driven by steam or horse power.

For what part of our daily bread are we not indebted to inventions? Some of the fruits of the earth we eat as nature gives them to us, but how much even of them do we take directly from the tree or shrub or plant which produced, and eat it without the aid of invention?

All our animal food comes within our reach, and is prepared for use only by the aid of inventions.

Hooks and nets and spears give us all we have of fish. The fish-hook is a very simple contrivance. Is it a great invention or a small one? If the fish-hooks should all be suddenly destroyed, together with the ability to make them, would not the loss of the invention be a greater calamity than any which has befallen the world for a thousand years? If so, were not the inventors of that instrument, and those who have improved it, real benefactors to the world?

Could we get along without needles? Could we give up pins without a sigh? Are knives and forks and spoons a necessity? They are all among the simplest things that man makes, yet he has not obtained them without a great deal of mental labor; without the exercise of powers of invention of a high order.

It is less than fifty years since the little articles called matches have come into use. They are now so common and so cheap that we use them almost as we do air and water, without thinking at all of their real value. How few there are of us who do not use them every day and many times a day, and how inconvenient it would be not to have them! But when I was a boy, nobody had them; nobody could have them, for they did not exist. In the country houses, at least, the greatest care was exercised not to let the fire go out upon the hearth, because in such case it became necessary to send to a neighbor's, often at a distance, for a fresh brand. Every night the live coals upon the hearth were carefully buried in the ashes to preserve them alive for the morning. In spite of this precaution, the fire was often lost. I have been sent many a time, in such cases, to a neighbor's in a cold morning to get a burning brand to start the fire at home anew. Nobody now thinks of taking any pains to preserve a fire, for it is easier to start a new one with a match than to preserve an old one. A very common way of lighting a candle in the house when darkness came on was to take, with the tongs, a coal from the fire,—wood fires were then used—and blow it, applying the wick of the candle to it at the same time. Sometimes it could be lighted very readily, but oftentimes it could be done only by the exercise of a good deal of skill and patience. A great deal of vexation and trial of nerves and temper has been saved to the world by the invention of matches, and the comforts of our homes increased in many ways. Perhaps, therefore, the comparison I suggested between friction matches and Sunday schools is not so incongruous after all.

There were some devices known in those days for obtaining a light or fire artificially, but they were inconvenient, somewhat expensive, and not in general use. The tinder-box was one of them.

A gentleman not much older than myself told me not long since that when he was in college one of his classmates was rich in the possession of a tinder-box by means of which he could strike a light and a fire in case of emergency, and he gave me a humorous account of the process of striking a light, involving considerable skill, much patience, and, as he said, some swearing.

A great many boys have been taught in Sabbath schools not to swear, but a great many more have doubtless, by the use of friction matches, escaped numerous occasions and temptations to swear, and wives have no doubt by this

invention been saved from innumerable scoldings for not covering up the fire properly at night.

There is one curious fact about matches which I do not remember to have seen mentioned. We speak of them as a recent invention, but they are only an improvement upon a very old invention. Travellers among savages have generally, if not universally, found that they possessed the art of procuring fire when they wished, by rubbing two pieces of wood together till the heat generated by the friction between them caused one of them to take fire. It is described as a pretty crude way of working, calling for considerable skill and some labor and patience. Perhaps the date of the invention may go back to the earliest use of fire by man. Yet the invention itself is essentially that which we practice when we strike a match. We rub the match upon another substance and the heat generated by the friction between the two causes the match to take fire. The improvement which the civilized man has made upon the invention of his savage ancestor is to coat the end of a piece of wood with a little composition of matter which takes fire at a lower temperature than the wood itself, and burns more rapidly. Simple as the improvement is, it took the world a long time to get it, and its inventor made a most important contribution to the comforts of man.

I was forcibly impressed a few years ago with the value to the uncivilized man of the simplest inventions of the civilized man, as I watched an Indian at Lake Superior at work upon a birchbark canoe. He had for tools only a knife, a hammer, and an awl, but I suppose he must have used a hatchet to procure the wood and bark of which the canoe was built. It was slow work even with these tools, and it was difficult to believe that he could have built the vessel with the blunt instruments with which his ancestors had to be content before they came into contact with the white man. What an acquisition the white man's fish-hook must have been to the Indian!

Fifty years ago a large part of the people of this country had no other resource for artificial light than the tallow candle. I remember it, and the vexations attending its use, the difficulty of lighting it by a coal of fire, the constant snuffing it required to make its light tolerable, and its constant tendency to melt and besmear everything in its vicinity. I venture to say that any of you would consider it an intolerable hardship to be compelled to use it and nothing else. Those who used oil lamps got a little better light, but not much less discomfort. Gas was used only in the large cities. But the inventors have been busy in providing a new material for illumination and the means for using it and in cheapening their production; and now in kerosene and in kerosene lamps, both of which have been called into existence within thirty years, the poorest people can enjoy, at the most trifling expense, a light better far than anything which anybody could command at any price before the invention of gas less than a hundred years ago.

Can we estimate the comforts of the homes of the country due to these inventions? Can we estimate the greater value of the evening hours for work, or study, or reading, which these inventions have given them?

I remember that my mother had a vial of what she called rock oil, which she thought very good for sprains or bruises. It was said to have come from Western New York. I now suppose it to have been petroleum. Petroleum has been known to man for a long time, but it had no value till it came under the hands of the inventor. He has made a worthless article a blessing. Invention marks every step of its history. Petroleum in this country lies deep in the

earth. By the aid of recent inventions man reaches it. By their aid he stores it, for it is a dangerous and difficult article to keep and transport. By invention man has changed its character. And now, not only this country, but the whole world is lighted by this new material. Yet all the invention which has been bestowed upon it would have been wasted, but for another class of inventors and another line of inventions. The lamps had to be invented or improved, and hundreds of men have been engaged on their improvement for years.

And now inventors have entered a new field and given us a light for our homes and streets almost as brilliant as that from the sun itself, from that agent which, since the world began, has lighted up the sky in angry flashes only to alarm timid and superstitious man.

It is a curious and interesting exercise to take any common article of daily use and inquire how much invention has been involved in its production; what inventions have preceded it; what ones, if any, it has supplanted, and what ones it gave birth to; what consequences followed its introduction, and what part it plays in the welfare of man.

The inquiry soon becomes a bewildering one.

Take paper, for instance. I believe we are indebted to the Chinese for its invention. Do we ever think of it as one of the great inventions of man? Why, it is nothing but rags ground up in water to a pulp, spread out in a sheet and dried. I think the art of making paper has been known in Europe less than a thousand years. It has taken the place of parchment for writing. It made the art of printing possible. It made the newspaper possible and especially the daily paper. The multiplication of pictures by engraving could not be carried on without it, nor the modern art of photography, to which I shall refer again. We attach great value to a system of general education as one of the most important agencies of modern civilization. But the first requisite of such a system is cheap books, and for these, paper is the only thing we could use. Would any of you undertake to enumerate within the next half hour all the uses to which paper is put? Would you undertake to name and describe all the kinds that are used?

Paper is largely made of rags. Rags presuppose the existence of cloth. Cloth is the product of two distinct inventions, spinning and weaving. Spinning and weaving are very old inventions, but even in their simplest form they involve the use of still older inventions. Whatever material is used for paper, a long line of antecedent inventions is involved in its use.

Paper must, I think, rank as one of the great inventions of man, and if the heathen Chinese had given the world nothing more than this, he would have made no small contribution to the progress of civilization.

I have said that paper is made from rags, and that cloth implies the arts of spinning and weaving. But it also implies much more. To me, one of the greatest marvels of human industry is a yard of cotton cloth at the price at which it is sold. The price of a yard of cotton cloth of the kind called print cloth, and which when printed becomes calico, is less than four cents, and the cotton itself costs half this sum. What inventions are involved in the raising of the cotton and its transportation to the mill where it is to be converted into cloth! Of course, we all think of the cotton gin, because that invention was made with special reference to the production of cotton, and has been much referred to as a striking example of the results which flow from an invention.

But the gin comes into use only after the cotton is grown. Of course the common agricultural inventions are used in raising cotton; the plow, the hoe,

the machinery by which the plow is made, the arts of making iron and steel, including the machinery employed, the harness for the horse or mule which draws the plow, and the art of tanning the leather of which the harness is made. Recently, planting or drilling machines for planting the seed have come into use, and artificial fertilizers—the product of the chemist's art—and the mechanism for distributing it over the ground. Even after the plant has begun to grow and before it is ripe, invention must often be called into play to protect it from the ravages of insects, and not a few devices, mechanical or chemical, have been called into existence for this purpose.

The ripe cotton balls are still picked by hand, though inventors are busy with the problem of picking it by machinery. It is gathered into baskets or bags, themselves inventions, to be transported by a cart, another invention, to the gin house, still another invention, where it comes under the operation of the gin to separate the cotton from the cotton seed.

Would you like to know what the cotton gin has done towards making cotton cheap; towards enabling enough to be sold for two cents to make a yard of cloth? An acre of ground is expected to produce at least one bale of cotton, which weighs 400 pounds or over. Before the cotton gin was invented, a man could pick about four pounds and a half of cotton from the seed in a day. So that it took a man about ninety days to separate the cotton which he could raise on an acre, from the seed.

Whitney invented the cotton gin, and with it a man could separate seventy pounds. In other words, he could do the work in six days which before took him ninety days. The invention was made less than a hundred years ago, but inventors have been busy with it ever since, improving it year by year, and now it turns out 4,000 pounds a day. In other words, a single machine will do the work of about a thousand men.

As soon as the cotton is through the gin it must be pressed into bales, for the cotton is a light, bulky article, which cannot be transported without confinement and a great reduction of bulk. So another invention is required, the cotton press. Some of these presses are wonderful machines. They embrace a steam-engine, a force pump, and a hydraulic or hydrostatic press, and give a pressure of 4,000 pounds to the square inch.

The cotton bale is surrounded by a coarse cloth called gunny cloth, itself the product of another line of inventions, including the arts of spinning and weaving, and made by special machinery. The bale must also be hooped with iron hoops, involving again the inventions pertaining to the manufacture of iron, but in addition the machinery for rolling it into thin and narrow strips, and I think this embraces the art of rolling iron into round bars and drawing it into wire.

These hoops must at last be fastened around the bales, and that has called for the invention of peculiar fastenings called cotton-bale ties.

At length, through all these inventions, we have the cotton ready for market and transportation to the factory, where it is to be made into cloth.

This demands the use not only of the cart or wagon, an old but important invention, but the railroad, the car, and the locomotive or the steamship, or perhaps both of them. It is bewildering to think of the inventions involved in these, and I could not even enumerate them in the time I have, if I knew them all.

When the cotton reaches the factory, an invention stands ready to unload it from the cars and deposit it where it is to be used. The iron bands are removed

by some instrument invented for the purpose, and the cotton is released from its confinement. It is submitted to machinery to free it from dirt and restore it to something of its original light, flocculent character, and it then enters a machine which spreads it out into a long sheet like cotton batting. This sheet in turn is stretched out into a long, soft rope called a roving. Successive machines, four or five in number, I believe, extend the roving and make it smaller, till it is smaller than a common pencil. It then goes on to a spinning-frame and is twisted into a thread ready for weaving. Our two cents' worth of cotton has been drawn out into a fine thread more than 7,000 yards long, each inch of which has more than forty twists in it.

Shall I stop to tell you what man has achieved in the art of spinning? The art, as you know, is a very old one. Its invention lies back of the records of history. It was practised a long time in its primitive form as a mere manual operation. The wool or flax or cotton was carried on a distaff. The thread was drawn out and twisted by means of a spindle held in the left hand, by which it was set to whirling while the fibres were drawn out of the mass and guided by the fingers of the right hand. The art was practised in this crude way for ages, and it is so practised now in some countries.

A book which describes this process says it was an obvious improvement to set the spindle in a frame and set it whirling by a band passed round it, and around a large wheel which was in revolution. But it was not so obvious that anybody, through long years, thought of it till about 350 years ago. I believe this improvement, which constituted the common spinning-wheel, was invented in Germany. A woman could spin with it much faster than in the old way, but she only kept one spindle employed. A little more than a hundred years ago the spinning-frame was invented in England, in which a number of spindles were set and kept in operation at the same time. At first only eight spindles were used, but now several hundred are used in one frame.

There were three leading inventors at this early date who each made important improvements in spinning—Hargreaves, Arkwright, and Crompton. With a common wheel a woman can draw out a thread about four miles long in a day. On a modern spinning-frame she can take care of 800 or more spindles and spin threads the aggregate length of which would be more than two thousand miles.

On these machines cotton yarn has been spun so fine that one pound of cotton would make a thread 335 miles long, and as a feat threads have been so fine that a pound of cotton would reach nearly 5,000 miles.

To go back to our two cents' worth of cotton, which has been converted into yarn. It is subjected to the action of several machines before it reaches the loom, where it is converted into cloth. Weaving, like spinning, is old, and some sort of machinery has always been employed in the process, but the power-loom of our factories is a modern invention. I sometimes think it is the most wonderful machine used. To make one yard of cloth, a shuttle carrying the filling thread is thrown across the webb perhaps 1,500 times at the rate of a hundred crossings a minute.

There are looms which weave cloth more than three yards wide. There may be nearly 10,000 warp threads in cloth of this width and 5,000 filling threads in a yard carried across the webb at the rate of nearly a hundred throws a minute.

The art of printing has always been recognized as one of the great inventions of man. It is over 400 years old, but after its first introduction very little

improvement was made until the present century. Since then it has presented a rapid succession of the highest efforts of mechanical genius. I shall not attempt to follow their history or describe their character; but it is interesting to know that they have been made almost wholly by English or American inventors, and that more has been done in this country than in England. The wonder of modern printing is that it can be done so cheaply. You have all seen the series of publications by the Harpers called the Franklin Square Library. I bought a copy for ten cents, the regular price. It contained thirty-six printed pages. I had the curiosity to estimate the number of words on a page and calculated it roughly at 2,000. That would give for the whole book 72,000 words, all for ten cents. Can you form a conception of the number of inventions which has made such an achievement possible? I think a modern daily newspaper is, however, one of the greatest wonders of the age.

I buy a morning newspaper, the "Boston Herald," for instance, for two cents. I read it on my way to Boston in the horse-cars and abandon it at the end of the trip, not because it is worthless, but because I have obtained from it what I wanted and it will not pay to preserve it for any other person or for future use. Now, what do I buy for my two cents? The physical thing that I buy is a sheet of paper and a certain amount of printers' ink impressed upon the surface of the paper in shape of letters and words. It is a wonderful fact that man can spread out the fibres of various vegetable substances into a thin, uniform sheet like that of paper, that he can cover such sheet with signs which can be made to express every passion or emotion of the human heart, every conception of the mind, and every fact in nature! Scarcely less wonderful than the fact that he can do it at all is the fact that he can make such a sheet of the size of the "Boston Herald" for two cents. It would take a volume to record all the inventions which have been made relating to the manufacture of paper alone to make such a result possible, and another for the inventions relating to printing. But the inventions relating to paper and printing would not of themselves enable "Boston Heralds" to be printed. The "Herald" is not made and sold for the paper and ink of which it consists, but primarily for the news it contains of what has taken place only the day before all over the world. You will find in the "Herald," as you know, or any other morning paper, day after day, the news of what took place the day before, not in Boston or vicinity alone, or even in Massachusetts or New England, or in this country, but in Europe, Asia, and Africa as well.

Through the potency of modern inventions you may perhaps to-morrow morning shudder over the horrors of a railway accident taking place at this moment thousands of miles away. Not till within a short time, and only through the works of the inventor, did a railway accident become possible.

You may perhaps read that a palace of the Emperor of Russia has been blown down with dynamite. Will you stop to think that dynamite is a new invention, or that the telegraph which brings the news was unknown fifty years ago?

The paper may tell you that Mr. Edison has perfected his electric light and is at this moment illuminating many cities, and you will speculate upon the effect that the announcement will have upon gas stocks, but will it occur to you that neither gas stocks nor gas was known a hundred years ago, and that till within less than half that period man had but little more control of electricity than he has now of earthquakes?

Now, consider for a moment, how this facility for transmitting intelligence must affect society in one of its most important aspects. A great calamity falls upon some distant city or community. If the news of it reached us, as it would have done a century ago, only after the lapse of days, or weeks, or months, and if friendly help can be given only after the lapse of a similar period, we may be touched with pity, but there will arise but little sense of sympathy or generosity or duty.

But when the intelligence reaches us almost at the moment of the occurrence of the event, and we are conscious that it lies in our power to help, the sympathies of thousands are awakened, their generous impulses are touched, and they recognize a moral obligation to bestow needed help, because it can be made immediately available. The duty springs from the ability, and the ability is the fruit of invention. It may seem a strange assertion to many persons, but I believe it can be shown to be true, that the development of the moral nature of man has been as directly dependent upon invention as has his physical comfort.

The relation between astronomical and mathematical investigations and navigation has been long recognized, but this relation is dependent upon the observation of the apparent position of heavenly bodies at given times, and these observations are in turn dependent upon telescopes and upon clocks and chronometers, both modern inventions. The working of the railroads of the country is hardly less dependent upon the timekeepers we possess than navigation is upon chronometers. Let any one ask himself how the railroads of this country could be operated if our only timekeepers were sun-dials, hour-glasses, and the clepsydras of the ancients, and he will soon see that the construction of the time-tables of our railroads and the operation of the roads in conformity with them would be impossible.

Mr. Atkinson will tell us what it costs to transport a barrel of flour upon our railroads from Minneapolis to Boston, and approximately what the saving is by the railroads over the old modes of transportation, but can he tell us what part of that saving is to be credited to the clocks at the railroad stations and to the watches which the conductors carry in their pockets?

The late Judge Curtis said to me several years ago, that the introduction of railroads had made a great change in the habits of the people as to punctuality in keeping appointments; that before their introduction nobody thought of being punctual to a minute, or even to an hour. Nobody thought of being "on time" till the railroads presented the alternative of being so or of "getting left."

One can now easily see that before the general use of clocks and watches, punctuality, as it is now understood among business men, could hardly have been reckoned as a duty. This is one illustration out of many more important ones where our social or moral obligations have arisen from or have been changed by physical inventions. By observations upon the laws or conditions of health by means of recent inventions and only possible by their means, we have learned how to counteract or prevent the introduction or spread of many diseases, and in consequence of this men recognize the duty to adopt and enforce many regulations in society for which no reason could be found a few years ago.

How could we live without glass? It enters so largely into the list of things we consider absolutely necessary, to say nothing of its uses for convenience or luxury, that we should almost as soon think of living without light or heat,



without air or water, as to live without this cheap substance made principally out of the sand under our feet? Can any one tell what civilization would be without it? It would certainly be a very different thing from what it is.

We talk of the fireside and the influence it has upon families and social life, but the window plays a more important part in our homes than the fireside. The invention of glass goes back to a very early period, but its general use for windows is comparatively recent. Accustomed as we are to glass windows, it is difficult for us to conceive how a house could be lived in with comfort without it.

There is another use of glass, resting upon a very simple invention, which plays a very important part in the comfort of man and the value of his labor, and which contributes wonderfully to our knowledge of nature and the universe.

Ever since man was capable of observing things around him, he must often have seen that a straight stick thrust obliquely into the water appeared to be bent at its surface. But it was a long time before man learned the value of this fact; but at length the lens was discovered. The invention consisted simply in the form given to a piece of glass; in giving to one or both of the surfaces of a disk of glass a curved form. This we know forms a lens, and a lens has become one of the most valuable devices known to man, but it was a long time after its invention before it became of much value.

A thousand years elapsed after the invention of the lens before it assumed an important place among the instruments employed by man. But man learned its value at last. Lenses may be made of other materials than glass, but for all practical purposes they are made of glass, and no other material will supply its place.

I alluded to spectacles as a valuable invention. I have never seen any attempt to estimate its value. I do not know that I ever heard the inquiry made. And yet when we remember that nearly every person above the age of forty-five, and very many below that age, use glasses, we see that they must enter largely into the sum of our comforts. How many persons would be deprived of the pleasures and benefits of reading and writing during a large portion of their lives but for this simple invention? How many kinds of labor would be performed badly and with great discomfort but for these devices? At what disadvantage literary labor would be carried on without them! For how many delicate handicrafts would men and women become unfitted in their later years but for them! At what discomfort and inconvenience would domestic needlework be performed in their absence. How much trial of the patience is saved by their use. I doubt not our tempers are much better in old age for these helps.

But the value of the invention of the lens is not limited to its use for spectacles. From it has grown up those wonderful modern instruments, the telescope and microscope. Through the former has come a large part of our astronomical knowledge, which has a great commercial value from the security it gives to man in navigating the oceans. It has also a high moral and mental value from the field it opens to the exercise and training of the powers of observation and imagination; from the new conceptions it has given us of the immensity of creation and of the power which gave it birth. I wonder if any man can rise from a contemplation of the facts, the mysteries and magnitudes of the universe, revealed to us by the telescope and spectroscope, without repeating to himself, with a new sense of significance, the question, "What

is man that Thou art mindful of him, or the son of man that Thou visitest him?"

But while the lens thus opens up to man in the boundless regions of space a universe which no stretch of the imagination could give him a glimpse of without it, it opens up to him also a no less wonderful universe in regions which, by reason of their littleness, lie equally beyond his powers of observation or the powers of his imagination.

It reveals to him the presence of life in forms as wonderful for their minuteness and activity and numbers as the sun and stars are for the mighty spaces they occupy and traverse.

This little device, then, of a piece of glass formed with curved surfaces, which a boy may fashion upon a piece of sandstone, not only enters into the daily use of man, ministering to his comfort and prolonging his power to work efficiently, but in no figurative sense it enables him to behold a new heaven and a new earth. It opens to him the most wonderful secrets of nature, and gives him new conceptions of the vastness of the universe and of the magnitude of the forces involved in its mechanism. The ancients believed that the sun was only a few miles away, a few thousand miles at most, but the telescope has enabled man to learn that the sun is 92,000,000 of miles away from us; that the earth, 8,000 miles in diameter, in his yearly journey around it, travels 600,000,000 miles at the rate of nearly 20 miles a second.

What conception of infinite power could the imagination, unaided, give to man, which could in the least approach that which is involved in this movement of the earth!

But we know through the telescope that this power, mighty as it is, is but an infinitesimal part of that which is actually displayed in the regions of space which only within recent years and by the aid of a multitude of inventions have been opened to the observation of man.

Upon glass and the lens, man is dependent for the use of another recent invention, which now that we have it, we would not willingly do without.

A beautiful art has come into existence since I was a young man, which gratifies one of the strongest desires of the heart and ministers to the social pleasures of every family and circle of friends. I well remember when the newspaper first announced that a Frenchman had invented a way of taking pictures by the help of the sun. Before that time very few people could have likenesses of their friends, living or dead. The face of a friend could only be seen when he was present. When absent, memory must do what it could to preserve the features. Only the rich, and not a large proportion of them, could command portraits of themselves or friends. Into what houses will you now go where you do not expect to find likenesses of whole families, and whole circles of friends? Very poor indeed are those who cannot and do not find the means of procuring and preserving pictures of those they love. Can any one measure the amount of gratification which the world has received from the practice of the wonderful art of taking pictures from nature, through the agency of a few chemicals spread upon a sheet of paper or of silver, and of the rays of light concentrated by means of a lens? There has been received from it mental, artistic, and moral culture. The invention has opened up a new field of investigation and research to the labor of the chemist and to the student of nature. From the first announcement to the world, to the present hour, a host of inventors have been engaged in perfecting and improving the art, enlarging the field of its applications, and studying the laws of nature

upon which it rests. The boundaries of human knowledge in more than one department of physics have been greatly extended in these efforts. Astronomy has received important aid from it, and by its help we get not merely pictures of what exists in the heavenly regions, but records of what is there taking place.

This art has even come to play an important part in the administration of justice and in the protection of the community against crime. By its aid criminals are detected, watched and convicted. Forgeries are proved or disproved by its use. It finds an important place in the ordinary business of commerce and the mechanic arts. By its aid, copies or representations of all valuable works of art are placed within the reach of multitudes who, otherwise, would know nothing of them or know them only through inadequate verbal description. The improvement of the public taste in relation to art by the knowledge of works of art which has been thus diffused, has been very great.

Does any one doubt that this extension and this spread of knowledge of the works of art must tend to the improvement of man's moral nature? Can it be doubted that the social affections are quickened by the preservation of the features of friends and the interchange among friends and families of pictures of those who make up the family circle? Will not a boy absent from home, feel the influence of home more strongly when he looks upon the faces of parents or sisters, than he would if he could not thus bring them into his presence?

But all these benefits which the world reaps from photography have come to us from inventions. It is not the fruit so much of genius, as of that patient labor and research which is winning from nature, day by day, secrets far more valuable to man than all her hidden treasures of gold and silver.

Within the memory of men not very old, a new power has, by the genius of inventors, been trained into the service of man. This power is electricity. It has always, as we now know, been present in many of the phenomena of nature, exhibiting itself most strikingly in the lightnings of the thunder storm, revealing, as man believed, the presence of a mysterious power which might be destructive, but which never could be useful to man.

A trifling incident revealed to an observing man in Italy, the fact that when two metals and the leg of a frog were made to touch, the muscles of the leg were contracted. This was a little more than a hundred years ago. This led to the invention of the galvanic battery, an instrument by which man was enabled to generate electricity for his own use. But many years were still to elapse before man could turn the instrument to much service.

Forty years later, another observer noticed that when a wire which was carrying a current of electricity generated by a battery was placed near the needle of a compass it turned the needle one way or the other on its pivot. A few years later, Faraday discovered that if such a wire was wound around a piece of soft iron, it made a magnet of the iron. Out of these simple facts have arisen the inventions of the telegraph, the telephone, and the electric light. The oldest of these inventions, the telegraph, is only about forty-five years old, and there are many who can easily remember the feelings of incredulity and amazement with which the claim that the invention had been made was received.

Can any one calculate the influence which this invention is destined to have upon the condition of man? We think it has spread over the world with won-

derful rapidity. And so it has. But the world has just begun to use it. Although we see telegraph lines spread all over this country, and we say and think that everybody uses the telegraph, yet the number of messages sent last year did not much exceed one to each two persons in the land, while the number of letters written, including postal cards, probably exceeded ten to each individual. When messages can be sent, as they most certainly will be, to any part of the land for ten cents or less, multitudes of people who never think now of using the telegraph except upon matters of pressing importance, will use it upon the most common occasions. How many times would the simple "all well" be exchanged daily between friends if it could be done for five or ten cents!

A multitude of inventors have been necessary to make the telegraph what it is, and its improvement was never going on more rapidly than to-day. I well remember how difficult it was for many persons to form an idea, when the telegraph was first invented, of the way it worked. It was not an uncommon belief that the paper on which the message was written was in some way sent along the wire to its destination. But the idea became familiar after a little time that the electricity only traversed the line and operated a mechanism at the distant place which recorded the message in a new language, or delivered it directly to the ear, and people began to think that they understood how the telegraph was worked. But when inventors began to talk about sending two or three messages over the same wire, at the same time, the limit of belief seemed to have been reached, and people obstinately refused to believe that the thing could be done. But it has been done in more ways than one, and now there are numerous wires in the country over which four or even six messages are sent at the same time. As these inventions enable one wire to do the work of two, or four or more, the wires which are wanting are called by the telegraph people "phantom wires." The improvement of the telegraph is taking other directions. On the common lines the messages are sent by the operator at the rate of about thirty or forty words a minute. But inventions are in progress, and are now being introduced, which will enable a thousand words a minute to be sent. Think of sending messages from Boston to New York over one wire, and recording them there, at the rate of a thousand words a minute! Few people speak at the rate of two hundred words a minute.

Those of us who are in the habit of receiving messages, often get them printed on long strips of paper. The invention used in sending messages in that way is one which enables a man in New York, by touching keys like those of a piano, to operate a printing machine in Boston or Chicago.

The highest achievement in telegraphy is undoubtedly reached in the ocean telegraph. It demanded a whole line of inventions peculiar to itself. A simple wire could not be used for a conductor. It would give out the electricity to the water so fast that none would reach the farther end to deliver the message, and the wire itself would be speedily destroyed. A coating must, therefore, be found for it which would at once protect the wire from the action of the water and keep the electricity from going off into the water. When such a coating had been invented, it was found necessary to strengthen the copper wire used for the conductor by the addition of steel wires, which must not touch the copper wire, but surround it, and this, too, must be protected by a coating. Then machinery had to be invented to combine the copper and steel wires with the coating material into a cable. Other machinery had to be invented to deliver the cable from a ship as she sailed over the course where

the cable was to be laid. Only the steamship could be used for the purpose, and thus the invention of the steam-engine gave to man the power to establish ocean telegraphs. New instruments of the most wonderful sensibility had to be invented both for sending and receiving the messages. A minute magnet carries a tiny mirror and is suspended by a thread so as to yield to the slightest impulse. A ray of light from a lamp falls upon this mirror and is reflected upon a screen some feet distant. This ray of light is the finger which the operator watches upon the screen. As the current in the wire varies under the action of the sending instrument, the magnet turns one way or the other, and the spot of light on the screen moves one way or the other and indicates the signals of the Morse alphabet to the operator and enables him to spell out the words.

Sometimes a fault is developed in the wire as it lies on the bottom of the ocean and signals cannot be sent. Does it seem possible that man can tell whereabouts on three thousand miles of wire, two miles under water, the fault is? He has invented instruments which enable him to do it, and to send a vessel to the very spot over the wire where the fault is, pick up the wire and mend it and return it to its resting place.

Some time before his death, in 1819, while resting from labor in his old age, James Watt, when asked to allow his fellow citizens to honor him with a seat in parliament, refused, saying that he had given employment to the better part of a million of men, and had earned the right to rest from work. To how many millions of men since then has his invention given employment! In a life of Watt published many years since, I find a statement that the steam-power of the world was equal to that of 400,000,000 of men, and this amount has probably been doubled since the statement was made. And yet the world has even now but just begun to reap the fruits of this invention. Each year witnesses the extension of its use.

About seventy years ago Robert Fulton, one of the greatest mechanical geniuses of this country, applied the steam-engine to a boat and made the first trial of a ship moved by the power of heat in a trip from New York to Albany. Now every ocean is plowed by the steamship, and there is hardly a navigable river on the face of the globe that has not become a highway for it. A few years later, in 1825, George Stephenson invented the locomotive and gave to man the railroad, and now, sixty years later, we have 112,000 miles of railroad in this country alone.

I believe that no other Englishman has done so much for his fellowmen, so much to change the social and economical conditions of society, as George Stephenson.

Would you like to know how much the steam-engine has increased the power of man in Massachusetts? I can tell you what the locomotive has done. In 1878, the railroad companies of this State had 1,030 locomotives. The proportion due to the amount of their track in this State was 757, and the work they did was equal to what 913,545 horses could do on good common roads, and was equivalent to the labor of 5,481,270 laboring men, or to that of a population of nearly 20,000,000.

Now, in 1875, Massachusetts had only about 130,000 horses, and her population was a little more than a million and a half.

But this was not all that Massachusetts owed to the steam-engine. She employs it largely in steam vessels owned in the State or coming from abroad. What the whole amount of work done by these vessels was equal to I do not know, but it was large.

She also employed steam and water power in her manufactures equal to that of 1,912,488 men. The work done by the steam and water power was equal to what could have been done by hand power by a population of 7,400,000.

I think there are more than 20,000 locomotives in the United States. There would be more than that if all the roads were as well provided with locomotives as the roads in Massachusetts are.

Assuming that to be the number, and that they do as much work as they do here, and the work is equal to that of 25,000,000 horses, or to that of nearly 150,000,000 of men, or to a population of nearly 500,000,000. I suppose the actual population of the United States is nearly 60,000,000. We see by this how much in this country alone the inventions of Watt and Stephenson have increased the powers of man. The imagination staggers under the figures.

Of course, a host of other inventors have been concerned with the results I have given, but the results are none the less the work of inventors because there are many of them.

The steam-engine has entered into many other inventions, the steam-drill and the steam-dredge, for instance, which have given to man the ability to execute engineering works of the most extraordinary character.

The steam-hammer is another of the wonders of modern machinery which followed the steam-engine. One of the gods of ancient mythology was Vulcan, a blacksmith, who was supposed, I believe, to have forged the thunderbolts of Jupiter. What conception may have been entertained of his power or of the magnitude of thunderbolts, I cannot say, but probably he was never supposed to wield a hammer like a modern steam-hammer, weighing thirty-five tons, through a distance of ten or twelve feet, or to have executed any work like the forging of the propeller shaft of a modern steamship. But what ancient gods could not do, the modern inventor easily does.

The power of the steam-engine comes from heat; from the fire in the boiler. The fuel used is largely coal, stored ages ago in the earth. Fire has been long known to man and has been ready to do his work, and the iron and steel for engines had been long known. But not till the magic of the inventor had brought these things together, did man learn what power was lying ready to his hand.

A few years after Watt invented the steam-engine, and while he was laboring to improve it and adapt it to the various wants of the world, a wonderful military genius arose in Europe, who filled the world with his fame and made himself as large a place in history, perhaps, as man ever did. He played havoc with the nations of Europe, changed the boundaries of countries and their forms of government, and apparently raised France to the highest pitch of power. But he lived only to destroy. Measuring Bonaparte and Watt by their works, and their works by the consequences which followed them, and which must stand as the greater fact in the history of the world? Which controlled most potently, for his own time and for the future, the destiny of nations, and which most deserves the admiration and homage, not to say gratitude, of mankind?

I hear people not infrequently express the belief that man will soon exhaust the field of invention. The inventions of the last century have been so numerous and wonderful that to many minds it seems most likely that man will soon reach the limit of his power, or that he will exhaust the resources of nature. But there is little reason to fear that either condition can be reached for ages, if ever. It is as little likely that man will ever reach the limit of invention, as

it is that he will be able to fix the bounds of the universe. Man makes inventions by combining the materials and forces of nature, so as to reach new results. Let any one consider how numerous are the materials which nature presents to the observation and use of man, how varied in kind and degree are the forces which are in constant operation, and how multifarious and intricate are the laws which govern their actions and relations, and then calculate, if he can, the number of possible combinations which can be made. I have seen the statement, which is no doubt true, that the fifteen blocks in the gem puzzle can be arranged in more than a million different ways. If this simple toy possesses such capabilities, what possibility is there that man can ever exhaust the field of nature? Wonderful as man's inventions are in number and character, they are at an infinite distance behind the works of nature. What a multitude of created things there are in nature, looking simply at species and varieties, and not at the individuals! How many kinds of plants and animals are to be found! What multitudes of reptiles and insects! No machine which man has invented calls into play such wonderful forces or is governed by such wonderful laws as the humblest plant on which he treads! Man is far enough yet from inventing a structure which shall build itself up from the earth, air and water, and scatter germs for its indefinite reduplication! He has succeeded in copying some of the products of nature, and he will achieve still greater results, but in doing it he has but opened a new field of invention, one which only a few years before seemed utterly beyond his reach. He has enlarged the field of invention, not exhausted it. A striking instance of what man has done in this new direction is exhibited in the substance called alizarine. It is the substance which gives to madder its coloring quality. Not many years ago, madder was extensively cultivated in many countries to supply the demand for the arts. Now the article is made artificially from coal tar, and the fields where madder was cultivated have to be devoted to other purposes. Invention has taught man how to make indigo, and the artificial article is likely to supplant the natural product. Diamonds have been produced artificially. I have full faith that sugar will in time in like manner be produced artificially. Starch and oil may not unlikely be provided in the same way. Man now cultivates the silkworm which devours mulberry leaves and converts a large portion into a glutinous fluid, which, when spun out into a fine thread, hardens and forms our silk. Man may yet learn how to extract silk directly from the leaves, and perhaps even produce the substance which the worm elaborates, and spin it into silk.

Since the telephone has shown that man, through the agency of electricity, can talk with his fellow-man hundreds of miles away, there are men daring enough to think that through the same agency man may yet see things at an equally great distance, so that you may not only talk from Boston to your friend in New York, but may actually see him as if face to face, and they claim that their attempts have been attended with some degree of success. Would you dare to say it was more unlikely that such a result may be achieved than that man should be able to transmit intelligence instantly three thousand miles through the depths of the ocean? Through long ages man remained unconscious of the presence and action of the forces of magnetism and electricity, but we now know that they are constantly present everywhere and incessantly active. What other forces may still be hidden from the observation of man it is impossible to know.

The present scientific belief is that the atmosphere is an aggregation of

infinitely small molecules, which really fill but a small part of the space the air seems to occupy; that through the unoccupied space these molecules are rushing at a high speed, hitting each other and the solid bodies around them and rebounding, and that what we call the pressure of the atmosphere, fifteen pounds to the inch, is really the bombardment of these molecules upon whatever arrests their course. The reason that all solid things are not swept away by this incessant pounding, is that the blows are struck in every direction, and so neutralize each other. But here is an ever present and ever active force, and if man should ever discover a way to make all the particles of a body of air move in one direction, he would have at every place on the surface of the earth an unlimited amount of power placed at his command.

But even if man should accomplish all this, there would still be an infinite distance between anything which he could devise or construct, and the organic structures which grow up around him; between the forces which he could wield and those exhibited in the operations of nature; and each step which he might take, while it would enlarge his knowledge, would at the same time bring him into the presence of new mysteries, and open up to him new problems for solution. Each new invention gives birth to a host of other new ones.

The steam-engine has been the study of inventors for a hundred years, and each year has witnessed improvements upon it, and such improvements are going on more rapidly than ever before.

About forty years have elapsed since Howe gave the sewing machine to the world, and thousands of inventions for its improvement or adaptation to new uses have been made and they are going on still. The same is true of reaping machines, spinning machines, looms, the manufacture of iron and steel, printing and telegraphy, and of almost everything used by man.

There is no sign that the work of the inventor is near its end, and those who believe, as I do, that he has been the chief agent in the progress of the world, have no reason to doubt that the world will be still more deeply indebted to him as the centuries go by.

There are now in force in this country more than two hundred and fifty thousand patents for inventions, the fruits to a very large extent of the mental labor of those who are called the laboring men of the country. Aside from the direct value of these inventions in promoting the comfort and increasing the wealth of the country, there is another factor to be considered, having the most vital relation to the industries of the country and its powers of production. This great number of inventions implies a high degree of intelligence and great mental activity in the great body of the people. It indicates trained habits of observation and trained powers of applying the knowledge which has been acquired. It shows an ability to turn to account the forces of nature and train them to the service of man, such as has been possessed by the laborers of no other country. It suggests as pertinent and most important the inquiry whether any other country is so well equipped for competition in production as our own; whether in any other country the laboring man is as efficient and his labor, therefore, as cheap as in our own; whether he does not exhibit the seeming paradox of receiving more for his labor than in any other country, and at the same time doing more for what he receives,—giving more for what he receives, and receiving more for what he gives.

At the conclusion of this address, a vote of thanks was tendered Mr. Smith for his interesting paper, a copy of which was requested for publication with the proceedings of the convention.



After a general discussion of subjects suggested by the paper, including the influence of labor-saving machinery upon the working classes, the convention adjourned until 10 o'clock A. M. of the next day.

## SECOND DAY.

The members of the convention having re-convened pursuant to adjournment, the President suggested a brief tour of observation, embracing a visit to the "work shop" of the Bureau, where the tabulating of the census returns of Massachusetts was in progress. The members accordingly accompanied the President to the State House, and were there presented to His Excellency, George D. Robinson, Governor of Massachusetts.

He welcomed the members of the convention, and expressed a lively interest in the work in which they were engaged. He hoped their meeting might promote unity of purpose and of effort, and prove a pleasant and profitable occasion.

Subsequently having visited other State officials and departments, the members were conducted to the building in which, as an annex, the work of the current census of the Commonwealth was being prosecuted under the direction of the State Bureau of Statistics of Labor.

Here a large clerical force, principally women, was found at work under the immediate superintendence of Mr. Pidgin, chief clerk of the bureau, who kindly entered upon a detailed explanation and illustration of the peculiar system of taking and tabulating census statistics, which has been devised and put in successful operation by this bureau.

At 11 o'clock the members re-assembled in the hall provided for their use by the State, and were then introduced to Mr. Edward Atkinson, of Boston, the well-known thinker and writer on social and economic questions, who occupied the succeeding hour in reading the following paper, prepared for the occasion :

## THE STATISTICS OF CONSUMPTION.

PAPER BY MR. EDWARD ATKINSON.

GENTLEMEN,—It is my purpose to invite your attention to a short treatise on the importance of the statistics of consumption. Our information is becoming very adequate in the matter of production and distribution, but what we do with our abundance is as yet but little known. Let me say a few words in introduction. There is one *a priori* conception which I accept for my own guidance in matters relating either to political, social or physical science, and from which I am prepared to reason deductively. If an apparent rule, law of nature, or prime motive of human action is presented to me which appears to control, or which has controlled, the doings of men from the dawn of history to the present day, I deduce the theory that it must have a beneficent rather than a malignant purpose, end or object. That is to say, the pessimist philosophy cannot, in my judgment, possess any foundation in truth. I do not care to disprove, and do not care to have any one else attempt to disprove, a theory, however logical in its form, which is based upon an apparent maleficent law of nature, whether material or immaterial; such a law, like the so-called laws of population or of diminishing returns from land, would condemn the body of man to hunger, famine and pestilence as a matter of

necessity rather than a matter of his own choice. It is necessary to my conception of a power which makes for righteousness to supplement that spiritual conception with the idea of material welfare being ultimately within the grasp of man, because the spiritual and the material are but two phases of manifestations of the same life.

It is useless for economists to discuss the old clerical dogmas of the fall of man and the consequent curse of labor. We know that the modern conditions of life have been evolved from those of prehistoric ages, and therefore the myths of the past must no longer keep science and religion apart. To that end, nothing is more needful, in the branch of science in which we are all interested, than to place before our minds a clear conception of the methods by which social progress has been and will be evolved. In this view of the matter we must conceive of the effort or labor by means of which subsistence is gained as a method of progress, and not as a punishment for sin. The garden of Eden may be symbolic of the future, if not of the past, when mankind may have earned leisure through the application of intelligence and effort.

We may use both the deductive and the inductive methods, but we may not trust wholly to either; and, unless we can read the prophecy of the future which is written between the columns of our figures or our collation of facts as to the past, our work is truly dry as dust.

Now, there is a permanent custom, rule or law which has controlled, and which now controls, the doings of men in what we call the production and distribution of wealth, which law is commonly assumed to be distinctly selfish, i. e., selfish in the maleficent significance of that word, and this rule of law is what we know under the title or name of competition. In connection with this view of competition, we are warned that the love of money is the root of all evil; that there is greater moral danger in wealth than in poverty, and that the world, the flesh and the devil are synonymous terms. To the ecclesiastical mind, the methods of business are usually deemed broad ways in which one man seeks to get the advantage of his neighbor, and hence they lead to destruction. Now, these are all such partial truths that they have the effect of very gross errors; and I cannot but think that they are among the causes of the great separation which exists between what is commonly called religion and life; hence the basis of our economic gospel is a profoundly moral one, which will sometime remove the false notions of the necessary business of life which cause this separation to exist.

The distribution of wealth or of products has always been worked in part, if not wholly, by the way of competition, from the earliest to the latest date. This is not so apparent in the period before the change from status to contract as it has been since. Ever since, however, the distribution of wealth or product has been governed by contract or agreement, the prime force in all commerce or exchange has been competition. In these later days, competition is condemned by many tender-hearted and right-minded persons because they see its hardships and do not see its benefits. They allege that it grinds the faces of the poor; that it makes the rich richer at the expense of the poor, and that it works in other ways toward privation and poverty rather than toward prosperity and progress. But this is a very shallow conception of the true function of competition, and when its method is explored to the bottom I think it will prove that in the end competition is the most effective mode of coöperation among men, and that it tends directly toward making a good subsistence common to all persons of ordinary intelligence, industry and health.

Its end is therefore beneficent. It will not remove all poverty, because there is, and always will be, a little poverty, due to misfortune or to want of mental and bodily vigor. Such poverty is, however, but the smallest part of that which now exists, and for its relief charity will always suffice. Competition will abate all poverty that is not irremediable, because it stimulates intelligence, and ignorance is the chief cause of poverty.

All commerce being now conducted by competitive methods, we must ask ourselves the elementary question :

#### WHAT IS COMMERCE?

It is an exchange of service for service, or of product for product. Each person parts with what he can best spare, and which some one else wants, and each one obtains in exchange something which he needs and which some one else can afford to part with. Each serves the other. Each thinks that he gains by the transaction, and in the long run each one does gain. There can be no permanent commerce or exchange of services, unless it satisfies both parties and is beneficial to both, whether it be between individual men or between nations.

I have said that all commerce is conducted by way of competition, and I assert this even with respect to the so-called coöperative system, which has been so successfully applied to distribution in England. (The coöperative factories in Great Britain are nothing but corporations managed in the competitive way, but mainly owned by factory operatives.) In order to prove this, it must be remembered that there is competition in buying as much as in selling, and the coöperative shopkeepers are combined and compete with other dealers in the very act of hiring the ablest men to buy their goods under the sharpest application of the competitive idea. Very high salaries are paid for this service, and none understand better the common axiom of trade than the managers of the coöperative shops: that "goods well bought are already half sold." These shops also compete with the common dealers, and in some cases drive them out of the business of distribution. How do they do it? By refusing to grant credits and by requiring every buyer to carry his own parcels away from the shop.\* These are most subtle and useful methods of competition, beneficial alike to the shopkeeper and to the customer. Unless the coöperators adopted such methods of competition even the Rochdale pioneers, who founded the whole system, would themselves have failed. "Why does not coöperation succeed in this country in the distribution of product?" is a question often asked. The reason is very plain. The shopkeepers of this country early learned and applied a competitive principle to the distribution of articles which are not quickly perishable, which is as yet but little comprehended in England in respect to retail traffic, namely, large sales at small profits and large dealings only with cash customers. The margin of profit with which our great shopkeepers are satisfied, and on which they grow rich, is so small that there is little left for the coöperative shop to work upon. In this department competition having already done the work of coöperation in reducing the cost of distribution, and, having proved itself to be a synonymous term, there is nothing left for coöperation to accomplish in the distribution of many of the staple articles of commerce. There is, however, yet great room for improvement in the distribution of perishable articles and in the small traffic. It is the small

---

\* I have been informed, since this address was given, that the co-operative shops have of late been compelled to adopt a delivery of parcels.

shops which cost the most for their support. The charge for the distribution of meat, milk, fruit, green vegetables and the like, is the heaviest. The baker is a high-priced man even if he does not grow rich himself. How to abate excessive tolls on small traffic is of paramount interest and importance. It is written: "To him that hath shall be given, and from him that hath not shall be taken, even that which he hath." That is a hard saying, yet it is a profoundly true one, even to the economist. Let us interpolate a little. To him who hath (gumption) shall be given (opportunity), and from him who hath not (gumption) shall be taken; even (a large share) of that which he hath, namely, of his small products, because his service is of little worth to others. No man can exchange services with another who is incapable of conferring a service himself. The rule of material success in life is never to do anything yourself which you can more easily get done for you by some one else. The employer who can use other men's hands or wits cannot spare his own time or brain for such work, and, conversely, the man who desires to be employed will find the exact measure of his wages to be the exact measure of the service which he is capable of rendering. This is just as true of borrowing and lending. The borrower must find out not only who has capital to lend, but also whether he himself is capable of using it without losing it. There is vastly more capital awaiting use than there is capacity to make use of it at this very moment. That is just what's the matter. To him that hath capital which he has earned himself, whether in his head or in his pocket, shall be given all the capital he can use, and from him that hath no capital, either in head or hands, shall be taken even that which he hath in his pocket, if his father has left him a bit and he has not been put under the care of a trustee.

One very great advantage in the increase of capital in ratio to the possible use which can be made of it, and the consequent diminishing share of product which capital can secure, will consist in the lessening proportion of those who will be able to live without working themselves, either with brain or hand.

Witness the tremendous revolution which is now in progress in Great Britain. The mere possession of land devoted to agriculture, entirely aside from city property, is computed to have yielded £60,000,000—nearly \$300,000,000—a year rent. To the extent of the purchasing power of this sum families have been enabled to live without work, except they worked from choice. This system has been continued and sustained by custom and statute in respect to land tenure, until, according to Arthur Arnold, four-fifths of the land of Great Britain is nominally possessed by less than 7,000 owners; and of this four-fifths, the greater portion is held only in life tenancy subject to entails and settlements, so that those who nominally possess it can make no profitable use of it. This rent is now becoming impossible simply by the beneficent working of competition. The competition of our farmers, our railways, and of the English steamships, has given the masses of the people of England cheap bread, and the 7,000 landlords can no longer exact rent in any great measure by power of mere possession. Yet it is not by their dispossession that a remedy can be found even for their own misfortunes. The need is that the land shall be repossessed, free of incumbrances, so that it can be put to use by its present nominal owners or by others to whom they may sell it when freed from incumbrance, while to these present owners will come the beneficent necessity of working themselves on their land or off it in order to subsist. Without possession there can be no abundant production from land.

Free competition, both in the possession and use of land and its products,

has had full play for the longest period over the area of the northern States of this Union where slavery did not exist to any extent. Let us judge it by its fruits. What has it accomplished, especially in New England?

1. It has resulted in the largest aggregate production in ratio to the number of persons employed that has ever been realized in any country.

2. It has reduced the ratio which interest, rent or profit bear to the total product to a less proportion of such product than is to be found in any other country.

3. It has established the highest rates of wages by working such a distribution of the joint product of capital and labor, that the more effective both become, the larger becomes the share of the laborer in the constantly increasing product.

4. It has assured a good subsistence to lower and lower grades of labor while diminishing the hours and the intensity of the work.

5. It has diminished the proportion which the great fortunes bear to the total accumulated wealth. It has increased the relative number of persons possessing moderate wealth. It has vastly increased the number who possess small savings.

6. It has greatly increased the number of lucrative occupations which are open to women or to men who are not of full vigor.

7. It has rendered the saving or accumulation of a considerable property less necessary to assure a comfortable subsistence.

8. It has reduced the number of hours of work necessary to be devoted to procuring subsistence.

If we accept the misnomer of "the poor" as a generic term for all who do not yet possess property, the poor, as a class, are becoming richer by way of competition, while the rich, who have already become possessors of property, may become no poorer, but are more numerous. In other words, competition is the force which tends to equalize the distribution of the annual product, while steadily increasing the product of each decade, as compared to the previous one.

I do not present these propositions to you with any intention of attempting to prove them at this time. I submit them dogmatically as being capable of proof. Perhaps they cannot all be proved, except by your own work. One of the most important parts of your work may be in this very direction. I think you cannot have failed to observe how very few grades of labor there are, and how evenly, on the whole, a certain share of the annual product is even now divided in each grade. For instance, in New England, where capital is most ample and effective, the mechanism of exchange most complete, and where specially skilled labor has concentrated in greatest measure, there are certain broad divisions, and in each division the earnings are very uniform. In the lowest plane or grade, the earnings of common laborers do not vary greatly. In the next grade above, the earnings of factory operatives and domestic servants and of women in many other arts are nearly alike, if the cost of boarding the servant be added to the wages. In the next above come the skilled mechanics, railway and telegraph employés, and with them may be classed a great body of clerks, salesmen and women and a large portion of teachers. In the next may be found a greater proportion of persons of moderate means and income than can be found elsewhere. And, finally, although there is a great deal of wealth, yet, in my judgment, the wealth of those who are distinctly rich bears a much less proportion to the wealth of the whole community than

it does anywhere else. In the State of Massachusetts nearly every other person—man, woman or child—is represented by name on the books of some savings bank, and the aggregate of their deposits is about \$275,000,000. Where has competition been more free than in New England, so far as its own people are concerned? And yet my own computations, which were examined, verified and sustained by Commissioner Wright, and which were made on the basis of his most excellent census of Massachusetts of 1875, proved that the whole capital of the State could not possibly exceed in value three years' production. I therefore present to you one of the most difficult and yet one of the questions most requiring an answer. What proportion of each year's product is or can be saved and added to capital? You will observe that this is a very different and much more complex problem than the question of what is the income of capital, because the income of capital is largely consumed. The capitalist who receives it is in many cases a mere distributor. Let us assume the cases of two men, each of whom receives \$10,000 a year from the earnings of the same railroad or factory. One spends or consumes it in the support of a large family and of many servants and dependents. The other spends or consumes \$5,000 and invests \$5,000 in a new form of capital—a new mill or a new railroad—and it is only this last sum which is added to the aggregate capital of the State in which these two men live. Suppose this joint income of \$20,000 had represented a dividend of 5 per cent upon a factory worth \$400,000, then the \$5,000 saved would be only  $1\frac{1}{4}$  per cent added to the productive capital in this or some other factory. All my investigations have led me to believe that the actual addition to capital is very small. I do not believe 5 per cent of our annual product for the last 100 years can now be found in existence as capital or even as realized wealth. It would be a matter of the utmost interest if this point could be worked out. The average population for the 100 years has been somewhat over 20,000,000, which would be the same as 2,000,000,000 for one year. If each person saved \$1, or if each worker who supports two others saved \$3, the wealth which this saving represented would be \$2,000,000,000. Assume that each person has saved \$12, or that each worker has represented a saving of \$36 per year, then the aggregate of wealth aside from land would be \$24,000,000,000 in 1880. I don't think as great a sum could be found, and the greater part of what there is has been saved in recent years. If \$12 per head per year be an approximate estimate of the total savings which have been maintained, what ratio does that bear to the cost of subsistence? Can we solve this problem? Are my computations approximately accurate when I assign as the average value of our present annual product per person what would sell for \$200, if all were sold at current retail prices, including what is consumed on farms? Is 10 per cent, as against 5 or 6 per cent, formerly, of such \$200—or \$20—now annually added to wealth or capital? It would be over \$1,000,000,000 this year. If 10 per cent of the product of the year has been saved or set aside for the maintenance or increase of capital, how much must we take off from the apparent gain to represent the actual depreciation of the capital previously saved? After all repairs have been made that are possible, mills, works, warehouses, and dwellings depreciate; the inventor destroys the accumulations of years; there is nothing constant but change; there is no fixed capital in an absolute sense, and all life is but a conversion of forces. Stability is death. How much can we set aside for reproductive purposes? How much of this will be even moderately permanent? What proportion of the useful things now in existence are more than one generation old? What

material work of man is permanent except the opening of the ways? Is the addition to capital more than sufficient to maintain an increasing production? Did the few in whose hands capital and wealth slowly accumulated in the first fifty years of our existence secure more, even for a short time, than \$5 to \$10 per head? Do the many in whose hands capital and wealth are now being accumulated secure, even for a short term, more than \$15 to \$20 per head? Would not future production decrease if any less than is saved were saved and added to capital? These questions are vital; they lie at the very foundation of all the issues to which your time and skill are devoted. Now, if both production and savings are so limited, wherein can greater progress be made, and how can greater welfare be assured? May it not be in a more intelligent use of what we do produce rather than in striving to increase it so fast, small as it may be when considered in ratio to our numbers? Our great fault is a waste of force. We waste in two directions; first, in respect to what is commonly called fixed capital. I will only treat the waste by fire. We burn about one dollar's worth in each hundred of each year's annual product, and we spend more than half a dollar more in a hundred in our clumsy attempts to extinguish fires or to spread the loss more widely among insurance companies. If my previous computations are correct as to the possibility of saving or adding to our capital at the rate of \$1,000,000,000 a year at the present time, then we might add 10 per cent to our savings, or \$100,000,000 more, by avoiding two-thirds of the useless waste by fire, and of the useless expenditures contingent thereon.

We waste in useless taxation. Our taxes—national, state, county and municipal—approximate \$12 per head. A large portion of this is, of course, well spent. Taxation itself does not constitute an unnecessary burden when the avails of taxes are expended by the government in doing what governments must do or what they can do better than the people can accomplish for themselves. On the whole, it may perhaps be assumed that we get, in value received, 75 cents on \$1 of the sum of our taxes, and our waste approximates 25 cents on \$1.

But my main object in this address is to treat the waste of food. What is the standard or average ration of the working people of this country, and what does it cost? What might be a true ration, and how much could be saved in the cost of food if some of the more simple principles of science could be made a part of the common knowledge of the people? It may be asked, why should we be urged to save when nearly all our present difficulties are attributed to overproduction? The general application of this term always exasperates me. I desire to examine the outside of the head of any one who pleads a general overproduction, in order to see how his brain is constituted and what element of common sense has been omitted in his make-up. What we all have in common, and about the only thing we do have in common, is time. What we need most to save is time. What the world requires more than anything else, is time to be devoted to leisure and rest. If we waste our capital, or if we waste our labor, we are making a great waste of time. Now, it is no benefit to any one to shorten the hours of labor by force. It is no benefit to limit the freedom of contract of adults, who are capable of making their own contracts, by legal provisions as to their hours of labor, in my judgment. I am of opinion that all such acts, except such as apply to children whose parents are not suitable guardians for them, work more harm than good. What we have to do is to increase the general measure of intelligence, so that all people

who are at work will earn leisure by saving force, and when they have thus earned a part of their time and have saved it from the arduous struggle for life, then they will know what use to make of it, and will use it well. Now half our effort, measured in money, and more than half our time is spent on food. Do we overproduce food or do we misuse it? This question brings me to the waste of food. It will have become apparent to you from your own investigations and from the consideration of the figures of statisticians, both in this country and in Europe, that, aside from those who have earned leisure, either by their own accumulation of wealth or by that which has been devised to them by their ancestors, half the struggle of life is a mere struggle for food.

This is demonstrated by the ratio which the cost of food bears to the cost of all other elements of subsistence, clothing and shelter. But I suspect that if we were to measure the struggle for life in terms of hours rather than in terms of money, we should find that a very much greater part of life was devoted to the production and preparation of food than is represented by the measure even of one-half. You will observe that in these computations of the cost of living which are made in money, all that we obtain is the cost of the food delivered at the house, but no computation is or can be made in terms of money of the labor of the housewife or children in preparing that food for use. Every one knows how continuous and how arduous this is, and herein lies the great waste of force. I do not mean to deal in generalities upon the necessity of teaching women how to cook, although that is fundamental. There is yet more to be done in the way of teaching both men and women what to buy for the purpose of being cooked. I had this conviction long ago without any approach to scientific knowledge in the premises, but by great good fortune, through conversation with Prof. Sedgwick of our Institute of Technology, I have had correspondence with Prof. Atwater, who is here to-day, and who will presently exhibit to you diagrams and charts which will prove to you the value of the nutrient material in different kinds of food and its measure in money at the prices which are now paid for food. To him I will leave the burden of treating that subject; but in order to enforce in some degree the principles which he will present to you, I beg to submit some statistics of the practice of two classes of people. According to my observation in past years, when I was directly connected with a manufacturing village, I reached the conclusion that the French Canadians were more skillful in obtaining a good subsistence out of cheap food, *i. e.*, low priced, than any other class of people of whose practice I had any knowledge.

I now present to you the statistics of the cost of food for six months, chiefly in this year 1885. I will first give you the cost of the food of nine adult males and five adult females in a boarding house. These people are mostly Irish.

|   |          | Per day.<br>Cents. |
|---|----------|--------------------|
| Meat.....                                 | \$243.70 | 9.52               |
| Milk, butter and cheese.....              | 165.69   | 6.50               |
| Eggs.....                                 | 35.50    | 1.40               |
| Total cost of animal product.....         |          | 17.42              |
| Bread.....                                | 103.70   | 4.07               |
| Sugar.....                                | 48.42    | 1.90               |
| Vegetables.....                           | 33.50    | 1.32               |
| Fruit.....                                | 29.88    | 1.17               |
| Tea and coffee.....                       | 18.00    | .70                |
| Salt, yeast, ice, spice and sundries..... | 54.51    | 2.14               |
| Total.....                                | \$732.90 | 28.72              |



Now, let me give you the cost of food of a French Canadian family of ten persons who have not changed their habit in any great measure since they moved into Massachusetts. In this family there are four adults and six children, from 2 to 18 years old. Three of the children are 10 years or under, and we will therefore compute the family as equal to  $8\frac{1}{2}$  adults. Their ration was as follows:

|                                    |          | Per day.<br>Cents. |
|------------------------------------|----------|--------------------|
| Meat.....                          | \$77.06  | 5.02               |
| Dairy.....                         | 71.87    | 4.63               |
| Eggs.....                          | 14.88    | .96                |
| Total cost of animal product.....  |          | 10.61              |
| Bread.....                         | 46.08    | 3.00               |
| Vegetables, green and dry.....     | 43.82    | 2.82               |
| Sugar.....                         | 29.16    | 1.87               |
| Fruit.....                         | 16.28    | 1.05               |
| Tea and coffee.....                | 9.95     | .63                |
| Salt, spice, ice and sundries..... | 27.72    | 1.81               |
| Total.....                         | \$337.42 | 21.79              |

Now, you will observe that there is a difference in the cost of animal products between these two cases of 6.81 cents, which is almost exactly the difference in the average cost of food per day, but the French spent  $1\frac{1}{2}$  cents more on vegetables, chiefly on dried pease, and I think that Prof. Atwater will show you that the actual nutriment in the pease added is about as much as the meat displaced. I think that when Prof. Atwater examines, as he will, the relative value in sustaining life of the particular kinds of food represented in these two schedules, he will find that the French Canadians have substituted dry pease and beans to such an extent for meat as to have obtained the same amount of nutrition at the difference in cost, which he will presently show you in his diagrams and in his tables. It is also true, I believe, that the French Canadians use the stew pan where we use the frying pan, and herein lies a vast difference. Now this may seem trifling, but you will bear in mind that a saving of five cents per day for the cost of the subsistence of each adult person in the United States at the present time represents in money over \$1,000,000,000 a year, and the difference between these two rations is nearly 7 cents per day, or more than \$1,300,000,000 per year. It is curious to think of this. We cannot save this quantity of food—what should we do with it? We cannot sell it—where is the market? If we could apply such intelligence as would make this measure of saving possible, all that we could save would be time; all that we could gain would be leisure. But during the partial adoption of a true method, he who learned it would save money, and thus get on in life.

Again, recalling the fact that half the struggle of life is a struggle for food, and that more than half the price of life is the cost of food, I am now able to make one comparison between two periods of time in respect to food in the exact manner which I have suggested to you in the several circulars which I have sent to you. Referring to the first example of the ration of nine adult males and five females for six months, at the present time, I have obtained the data from the same boarding house of the cost of subsisting the same number of adults in 1873. In that year the cost of their food for six months was \$1,083.51, or 42.52 cents per day, now 28.72 cents, a reduction of very nearly 33 per cent. The difference between these two periods in the cost of fuel, light and soap was over 30 per cent. Rent in this village was an arbitrary

sum. The factory tenements were charged with barely enough rent to keep them in repair, and were not looked to as a source of income, so that I have no opportunity in this case to compare the relative conditions of shelter. Neither have I been able to make an exact computation of the reduction in the cost of clothing; but, judging from certain elements which enter into the cost of clothing, I am of opinion that the reduction has amounted to more than 33 per cent. You will observe that the prices of 1873 are in the depreciated currency of that period. It would not suffice for an accurate comparison even to reduce them to terms of gold, the malignant effect of bad money, or mock money, as the greenback has so well been named, being to vitiate all our statistics. Suffice it, that where these figures show a reduction in the cost of living at the present time as compared to 1873, averaging at least 33 per cent, the wages of factory operatives who are in continuous employment at the present time are less in gold than the currency wages of 1873 by a difference not exceeding 20 per cent. Wages in gold are now as high or higher than they were then. I think it is proved that the lower wages of the present period will buy very much more food, fuel, shelter, and clothing than could be purchased for the wages of the period of inflation from 1869 to 1873. In fact, I am sure of it, and one of the most useful applications of the standard ration on your part will be to make this fact so plain that "he who runs may read," if you can do so. There is nothing new under the sun. When I made the suggestion to Prof. Atwater to prepare for me a variety of bills of daily fare at varying price, each of which should contain the necessary quantity of protein, fats and hydro-carbon, I did not suppose anything of the kind had ever been done. We will submit to you several examples which are to be perfected for our use at the meeting of the American Association in August. But he also showed me a German pamphlet prepared by a man who is interested in the import of Texas beef and Australian mutton, in which this idea has been fully carried out. There is a bill of fare for a fortnight at a cost of about eighteen cents per day, and it is curious to note how meagre it is for the money.

Let us return to our own problems. It has been shown how great a reduction there has been in the cost of living in recent years. But it may be said, on the other hand, by so much as the factory operatives can now purchase their subsistence at less cost than they did in former years will the producers of food, of timber, and of the materials for shelter and of manufactures receive less. May not they suffer as much as the operatives gain? By no means. Herein is to be found the enormous beneficence of the saving of force in the production and distribution of products. The work of the farmer has been enormously reduced by the application of machinery to agriculture, and I need not refer you to the tables which I have compiled on the railway question, by which it appears that the cost of distribution by railway between 1869 and 1885 represented a sum nearly if not quite equal to the reduction from the currency price of food to its gold value to the present day. We have learned so well how to save the expenditure of force in the matter of primary production and of wholesale distribution, that I think it is perfectly safe to say of Uncle Sam, considered as a concrete individual, that if he works the same number of hours in 1885 as he did in 1865, at the end of the civil war, he can produce or distribute one-third more now than he could then, and this is the secret of what we call over-production. It follows that if we choose to work as hard as we did then, we must find a wider market for all our produce, as we have found a wider market for the special product of our agriculture; or, otherwise,

if we do not care to work so hard we may work less; that is to say, we may save our time. I think we are saving our time. I believe that the general struggle for life is less arduous; and that remuneration is more evenly divided now than in any previous period in our history, notwithstanding the apparent loss, depreciation and specific lack of employment in certain directions. You overlook a vastly wider field than can possibly come under my supervision. I ask you whether the following statement is not a true one? Accepting the tables which I have submitted to you in regard to the distribution of occupations, it appears that not less than nine-tenths of the population who are engaged in any kind of gainful occupation, that is to say, ninety persons in each one hundred of those who work for money, are either in the position of a small farmer who must work harder than any of his men, or else of a wage earner or salaried person. Now I ask you, with respect to the wage earners, if it is not true that 75 per cent, in point of number, are now in continuous employment at as high rates of wages as they ever received before? Furthermore, is it not true that of the remainder 15 per cent are at work at rates of wages which have not been reduced on the average 20 per cent from the highest point, and, therefore, are as well off as ever before? Is it not also true that 5 per cent of the remainder, or more, have partial employment as much as they have usually had? Is it not, then, true that the proportion who are out of work constitute less than 5 per cent of the whole force? Where is there a large body of unemployed persons at the present time, aside from the two or three particular branches of occupation in which there has been a temporary congestion? If you answer these questions affirmatively, do you not, then, declare in terms that the working people, as a whole, are to-day more prosperous than they ever were in the history of this country? Is this not the fact when we get to the bottom of it? If so, whence the loud cry of hard times, of loss and of depreciation? Is not our whole problem how to make the work continuous and how to avoid the great fluctuations in the demand for labor, even if only a small proportion are adversely affected by these variations of demand? I can only say, in a very few words, that, in my judgment, that which is now happening, or has been happening during the last two years, has been an adjustment of labor and capital to new conditions which have been developed since the war, and of which we are now feeling the secondary effects. These new conditions are of the most profound and revolutionary character. They represent a vast saving of force in production, in distribution, and in the great commerce of the world. What are they? First, the abolition of slavery in this country and the effective application of free labor; second, the extension and consolidation in the railway service, especially of this country, but also in other countries; third, the opening of the Suez canal; fourth, the invention of the Bessemer process for making rails; fifth, a vast improvement in steam engineering, whereby the application of fuel to the arts has been reduced more than one-half in quantity and in cost; sixth, the extension of the telegraph system; seventh, the invention of the telephone; eighth, the restoration of a specie standard of value in countries which had for many years been on a paper basis. Each one of these changes, improvements or inventions has eliminated a part of the cost of subsistence, if cost be measured in terms of labor. Aside from these startling changes and new inventions, almost every customary process has been made easier, quicker or more productive. It was, therefore, in the way of progress that the elimination of cost in terms of labor should find its ultimate expression in a reduction in prices or in

an advance in the rate of wages;\* the ultimate effect of all invention, as I have attempted to prove in an essay on "The Distribution of Products," being to leave with the laborer an increasing share of an increasing product, and to leave to capital a decreasing share of an increasing product which may yet be consistent with an absolute increase in the amount of capital saved. But in such vast changes the accumulation of property, i. e., capital, has borne the burden of the change. The recent period of depression has been the rich man's funeral and not the poor man's. This recent period has been one in which capital has been reduced in its market value, i. e., in the price at which it could be sold or exchanged, much more than labor. The price or wage of labor, taken in the aggregate, has been reduced much less than the price of capital. The purchasing power of wages has increased, while the income of capital has decreased. I believe we are now entering upon a new period, which will be a period of great progress and prosperity for rich and poor alike in this country upon this new foundation of more effective capital and more productive labor.

In this hasty sketch I have endeavored to present to you the importance of some of the suggestions which I have made for determining, first, the relative share which capital can secure from our present product; second, the relative share which enures to the laborer; third, the use to which the laborer may put his share, as indicated by the statistics of consumption. These problems present almost a new field to the statistician, and the application of these

---

\* Very able arguments have been presented by Mr. Goschen, Mr. Giffen and others, in which this great decline in prices is imputed to an increasing scarcity of gold. In Mr. Giffen's recent article in the June "Contemporary Review" he gives a very clear statement of all the facts in the case, and while referring somewhat incidentally to the improvements which have been made in the processes of production and distribution, he yet attributes the reduction of prices to the diminishing product of gold. I can only regard this as an hypothesis unlikely to be proved, because both Mr. Goschen and Mr. Giffen seem to me to give very little regard to the element which I should consider the chief cause of a reduction in price. They take note, it is true, of the increasing quantity of staple products as a factor, but they do not appear to give any attention to the fact that the increased product is the result of the same or of a less quantity of labor. In order to demonstrate the effect of this important element in the case we may also present hypothetical conditions.

First. Let us suppose a given community engaged in manufacturing and farming, and supplied with all the coin it needs to serve for its instruments of exchange and for bank reserves. Consumption is restricted, because the roads are bad and the time required to make the exchange is long. If a large quantity of gold is added to the quantity of coin, without being accompanied by other improvements, through the sudden opening of a mine in which the labor cost of procuring the gold is small, would not the only effect be a rise in prices, unless the coin could be exchanged for imports?

Second. Suppose, on the other hand, that no addition is made to the stock of gold, but that railways are substituted for common ways, with no improvement in the processes of production. Yet would there not be a great saving of time in making the exchanges, and would not this cause less coin to be required? Would not a fall in prices of bulky commodities probably ensue, if this change were accompanied by a transfer of the coin which could be spared to foreign countries in exchange for something which had before been beyond the means of the community?

Third. Suppose a great reduction in the labor cost of production and of transportation were made at the same time, with no addition to the stock of coin, in such case would not increased consumption and activity ensue, the saving of time offsetting the increase of transactions, so that the old stock of coin might still suffice, and the end would be greater abundance and increased consumption at the same prices?

Fourth. But now let us assume what seem to me the actual facts. Between 1850 and 1880 the modern railway and the modern steamship began to have their effect upon commerce, Agricultural machinery, improvement in steam engines and in the processes of manufacture began to have their effect on production,—the electric telegraph came into use—and had the volume of the precious metals remained the same, a great reduction of prices might well have been expected growing out of the increased production and decreased cost of distribution and great saving of time. Such had been the effect of the last series of great inventions, such as the first application of steam, of the power loom, of the locomotive and the great development in iron mining and manufactures, without which England especially could not have sustained the wars of the first part of the century. But coincident with the changes in production between 1850 and 1880 came the vast addition of the precious metals at the lowest possible cost of production; and they more than counteracted the lessening cost of production of other commodities. As compared to 1845-50, prices steadily rose until the advance culminated between 1870-75. Increase of gold in circulation more than counterbalanced the increased production and wider distribution of other commodities. It will be observed that in such periods great fortunes are made, because the rise in wages is much more slow than the rise in prices, and wage-earners are the great consumers of the goods and wares from the sale of which fortunes are secured. The advantage which rising or high prices bring to wage-earners is that of continuous employment; otherwise they are a disadvantage to them.

statistics by scientific methods may result in showing a way of saving force which will become a part of the common knowledge. What is this purpose, merely bread and butter? Far from it. When we have learned the way through labor to leisure, well earned and well used, we shall have established a moral basis for the material science to which we devote so much of our time and of our attention. Through effort and labor to knowledge, through the control which a knowledge of science may give over the forces of nature to leisure, and through leisure to welfare not only material, but also moral and spiritual, appears to be the method of evolution which the power that makes for righteousness has established as the law governing that portion of human life which is spent on this earth, while man dwells upon it in a material body.

Gentlemen, I have addressed you with a very grave sense of the responsibility which rests upon you. You are looked upon, to a certain extent, as the special spokesmen of laborers. It has been in their interest, as a distinct class, that your offices have been created and that you have been charged with your duties. Yet for you to become parties in a supposed conflict between laborers and capitalists would be most disastrous to those whom you are assumed especially to represent. Nothing can be more important to the rights of labor than that laborers should respect the rights of capital, while the danger of the laborer consists in far greater measure in restrictive legislation than that of any other class. Capital can adjust itself to almost any conditions, and can even secure to itself a larger share of the smaller

---

During the period from 1865 to 1875, however, another era of unusual invention and of great reduction in the labor cost of all production took place, and again it would have been reasonable to expect a fall in prices; but, although the panic of 1873 had been severe, it did not result in a permanent fall—it caused a fluctuation only—the enormous mass of precious metal added between 1850 and 1870 had not yet worked out its full results. The excessive abundance of gold enabled Germany to substitute gold for silver, and in this way caused a depreciation of silver, the product of which was still increasing; the United States and Italy found abundance of gold for their purposes without causing a sign of scarcity anywhere, and such has been the stimulating effect on prices of the vast addition to the stock of gold at low cost of production that the effect of all these improvements, which would otherwise have immediately caused a decrease in the prices of grain, cotton, iron, copper, sugar, textiles—in short, of every great staple except lumber—was deferred until 1882-3. This great and sudden excess of gold has now at last become distributed; the production of gold is ample to provide for waste; there is no sign of a scarcity anywhere of gold, and there is still a small excess of silver, and at last the beneficent results of all the inventions to which I have referred are becoming apparent, from which we are now obtaining our vast abundance of food, fuel, metal, and clothing, accompanied by a great reduction in rents, both of land devoted to agriculture and of city property, and we have at last the lower prices to which they entitle us. In such periods the owners of railways, factories, warehouses, and works which have been constructed on a basis of high prices, must suffer; merchants and manufacturers who carry stocks of goods also suffer, and the small proportion of the working classes who are customarily employed in constructive enterprise find employment with difficulty. All the rest gain. Abundance and low prices are a permanent benefit—the great volume of the necessary traffic, which constitutes at least 90 per cent of the whole, goes on its customary way, and, when the adjustment shall have been made, when constructive enterprise begins again and when general prosperity returns, every one will see what is now apparent to only a few; that such hard times as are produced by an abundant production at a decreasing cost, measured in terms of labor, are, in fact, the periods when the mass of the people are making the greatest progress in substantial welfare. Aside from the entirely abnormal conditions of war, I have myself witnessed the purely commercial crisis of 1857, the railway panic of 1873, the long period of depression and progress preceding the restoration of the specie standard in 1879, and the recent era of abundance and adjustment of prices which have been called “the hard times” between 1882 and 1885. Each of these periods has been one of the cures of a previous disease in the financial fabric and after the remedy has worked great prosperity has ensued; and the present era will, in my belief, very soon prove to have been one of the most wholesome processes, during which the foundations are being laid for rendering the struggle for life vastly easier than it has ever been before, and in which a very few will have suffered for a time, while the vast majority will have gained. Time would not suffice to analyze the beneficent effects of permanently low prices growing out of abundance, but if you have followed me closely you will observe that such low prices are accompanied by correlatively high wages, the necessary consequence being a much more equitable and natural division of products between labor and capital, to the enduring advantage of the former.

In the periods of adjustment to a lower plane of prices and to lower wages, even if the wages of those whose employment is continuous are *somewhat reduced*, there are many real hardships and many more which are imaginary, both tending to widespread discontent. Most of these difficulties would be greatly alleviated if very sudden fluctuations could be avoided. Yet whatever may be the dangers and distress occurring in such periods, I am of the profound conviction that each adjustment to such lower and lower prices as are caused by an increasing abundance of products at a lessening cost, measured in terms of labor, is a step in material progress and to the lasting benefit of the working people of the country.

product which will inevitably ensue when free competition is restricted by statute laws; but the laborer who invokes the power of the law to deprive him of the liberty of contract, and who prevents the free working of competition by such restrictive statutes, must bear the greater share of the loss which will almost certainly ensue, even more than his relative proportion. In the last analysis the earnings of the laborer rest wholly upon his individual character, capacity and integrity, and any statute or legislative act which prevents him from disposing of his time, his skill, his work, or his money with absolute freedom, provided he does no injustice to his fellows, will be the gravest misfortune to which he can be subjected. I know of no position of trust or responsibility which calls for higher quality of mind than the positions which you hold. No one knows better than the statistician what a snare statistics may become, nor how untrue may be the deductions from them if they are not complete, or if they are not used with judicial integrity and under the strictest sense of responsibility to truth.

The thanks of the convention were tendered to Mr. Atkinson, and permission to embody his address in the published proceedings of the same was solicited.

Succeeding the paper an informal discussion of the views presented ensued, participated in by the members and Mr. Atkinson, until the hour of adjournment.

#### EVENING SESSION—SECOND DAY.

The convention took up the consideration of the general subject of collecting and presenting statistics of labor.

The discussion, first, as to the best way of collecting accurate information, in statistical form, adapted to tabulation, was participated in by all the members, who recited their experiences and expressed opinions based upon them.

Mr. Enos, of California, recounted the difficulties which had arisen under the operation of the law in his State, requiring county officers to furnish given data to his bureau. The results had been far from satisfactory. Many local officers declined to augment their specific duties and labors by entering upon investigations on behalf of the labor bureau, and the returns made were consequently imperfect and partial. He believed that in order to reach desired facts and conditions provision should be made for sending the accredited agents of the bureau direct to the original sources of information. He had no difficulty in collecting statistics from the manufacturers of his State, the most of whom had been more than willing to afford him all the assistance possible.

The industrial situation in California is dominated by the Chinese, and the facts in regard to that disturbing element required special scrutiny and elucidation on the part of his bureau. In pursuing investigations among the Chinese it was imperative to have special agents in the way of interpreters. He believed the presence of the Mongolian in California was not only a constant injury and menace to native workingmen, but was retarding the development of the State.

Mr. Hutchins, of Iowa, reported his experience in distributing blanks through the mails, asking for voluntary replies from individuals. He had met with a greater degree of success than he had been led to expect, and on the whole was gratified with the results obtained. Out of a large number of

blanks thus distributed there has been at least 33 per cent returned, and 25 per cent were intelligently filled out and available for use. Owing to the large number issued, this gave him a valuable mass of data for compilation. His efforts to obtain replies had, however, been seconded by some of the labor organizations, which, doubtless, increased his returns from workmen. He felt justified in the opinion that this method could be successfully made use of in Iowa, and that the intervention of canvassing agents would not be necessary except in some special investigations.

Mr. Bishop, of New Jersey, said that after many years' experience he had found the most effective plan to be the preparation of blanks covering desired points of information both as to employers and employes. These he placed in the hands of persons specially qualified to reach the two classes, who visited individuals and firms and procured the proper answers to the interrogatories of the bureau. A little explanation on the part of a special agent, or a little assistance in making the necessary compilations, greatly facilitated matters, and promoted accuracy of statement. Information gathered in this way possessed a *bona fide* value which could never attach to the returns of unknown and irresponsible correspondents. He believed that, wherever their appropriations admitted of it, the commissioners would find that personal application and investigation would give the best results, and the best satisfaction to the public.

This view of the case was endorsed by the greater number of the gentlemen present.

Mr. McHugh, of Ohio, advocated a uniform system of blanks, and of compilations, in order that the investigations of different States might cover the same ground for the same period. Many advantages, he thought, would result from such a plan. The exact condition of industry in the various States might thus be shown simultaneously, and an opportunity would thus be afforded for comparisons of conditions in different parts of the country which would be of the highest value alike to workmen and the public.

He believed, also, that in this way the State bureaus might be made important allies to the National bureau, which would then have data at hand for generalizations and deductions applicable to the whole country.

Mr. Betton, of Kansas, regarded the suggestion of the gentleman from Ohio as a good one, and thought the series of blanks which Mr. Bishop of New Jersey had exhibited to the members, and which were intended for distribution in that State the coming year, could be adopted by the other States with mutual advantage. The bureau in Kansas had just been established, and he was desirous of availing himself of the experience of those who had been long and successful in the work, also of coöperating in the most effective manner with the bureaus of other States.

Mr. Wright, of Massachusetts, stated that the subject of uniformity of blanks was one which had engaged the attention of previous conventions, and had been very fully discussed by the older members. Although at first thought it might be considered feasible, it had been found upon a comparison of views among the members that the conditions varied so widely in different States, that it was difficult to harmonize them so as to take concerted action. The bureau of Massachusetts had been in the field for sixteen years, during which period it had published annual reports on a variety of specific subjects, and taken up numerous special investigations such as local events and influences had seemed to demand. Bureaus had subsequently been created in other States, each of

which was characterized by industries peculiar to itself—some being newly engaged in manufactures, others largely devoted to mining enterprises. In some States reports were made annually and in others biennially; in some the appropriations admitted of a broad inquiry, and in others of a very limited one.

In each case the bureau of labor statistics is confronted with duties, and restricted by conditions peculiar to its own organization and its own State. The result has been that while working in a common field, for a common end, the commissioners have found it difficult to unite upon identical and contemporaneous lines of work.

He believed that plans might be perfected in the future by which the State bureaus might be made valuable coadjutors of the bureau at Washington, and it would be his aim to promote such an arrangement.

Mr. McHugh, of Ohio, asked the views of the commissioners on the matter of compelling persons or firms to furnish information desired by the bureaus. The law under which he was working, while it gave the commissioner power to summon persons, and send for papers, and examine witnesses, under oath, was practically inoperative for the reason that there was no authority to commit for contempt, or otherwise compel persons to impart information when their attendance was secured. He was in favor of a law which should make the demands of the bureaus as imperative as those of the United States Census Bureau.

Mr. Pond, of Michigan, thought that milder measures than an appeal to the terrors of the law would ordinarily prove more effective to the end in view. He found manufacturers and workingmen alike very quick to take the defensive against anything in the nature of a demand, whereas they rarely failed to accede to a request when the objects of the inquiry were fully presented. He feared commissioners would fail of their object if they attempted to set up a court before which to summon either business men or workingmen.

He was invested with powers similar to those of the commissioner of Ohio, but had not attempted to exercise them, both because he thought it bad policy to take the risk of antagonizing any class in that way, and because the unwilling testimony of any man would naturally be untrustworthy.

Mr. Peck, of New York, mentioned the case of a zealous special agent who had insisted upon visiting the premises of an objecting firm, and had been ejected. Upon an examination of the legal aspects of the case, it was found to be a question whether he had not been guilty of a trespass, while there was no question whatever as to the failure of his efforts to obtain information.

Mr. Peck had, however, conceived and formulated a plan which he believed would obviate difficulties of this character. During the session of the last Legislature of New York he had proposed an amendment to the law creating the bureau, which should make it mandatory upon manufacturers to report annually to the bureau of labor statistics certain facts relating to their business. He believed a blank form could be devised which would be unobjectionable to manufacturers, yet which, properly filled out with the desired statements, would convey information of a very valuable character when compiled, and that, after a few years, reports founded upon such data as these would be of such general interest that the system would commend itself. The proposition had met with favorable consideration among members of the New York Legislature, but the session was so far advanced at the time that final action could not be reached. He thought that a law making specific requirements of this kind upon all manufacturers alike would be recognized, where authority to make interrogatories without limit as to number or character would be ignored.



Mr. Wright, of Massachusetts, did not think that serious objection could be made to legislation of the character proposed, or to the operation of such a law if passed, provided the details of the proposed schedules were wisely planned and clearly defined by legislative committee, or some authority other than that of the individual head of the bureau. The schedules used in taking the census of Massachusetts were revised by a committee of the heads of the State departments, and approved by the governor and council. This was done in order to insure a careful consideration of the character and effect of every interrogatory propounded, before assigning penalties for the refusal to answer it. Unlimited authority to inquire into the business affairs of the people, and to demand answers with the alternative of a penalty, should not be vested in any individual, nor desired by the head of any bureau. Vague and general powers conferred upon officers or bureaus were apt to defeat their own purpose, and practically brought both the law and the officer into contempt. He regarded the suggestion of Mr. Peck as a good one, and thought a bill might be drafted requiring certain statistics of manufactures to be reported annually to the bureaus, and thus put them in a way to present uniform information of a very valuable and comprehensive character.

Mr. Peck, of New York, moved that a committee of three be appointed, of whom the president should be one, to prepare a bill to be submitted to the various State legislatures providing that manufacturers should make annual reports of certain specified details of their business to the State bureaus of labor statistics. Carried.

The convention then adjourned until 9 o'clock the following morning.

### THIRD DAY.

Upon being called to order on the morning of the third day, the discussion of the methods and practices in the different States was resumed.

The President announced the presence of Mr. Joseph D. Weeks, of Pittsburgh, a statistician of late connected with the United States Census Bureau and identified with the iron interests of Pennsylvania, whom he invited to join in the discussion.

Mr. Joseph D. Weeks, of Pittsburgh, said he was gratified to meet the gentlemen present and regretted that other engagements would prevent his spending more than a few moments in the convention.

He was familiar with the kind of work under discussion, and realized some of the difficulties, both in procuring reliable data, and in presenting them in the most intelligible and effective manner. In the matter of obtaining information he thought that special investigators were essential, and that they should, moreover, be men possessing special familiarity with the various industries they were expected to report upon. It was misdirected effort, for instance, to commission an expert in cotton manufactures to work among the iron mills, or a man to either industry who was unfamiliar with both. The best results could only be expected from the employment of specialists in each industry. What was true in this regard was equally so in making inquiries among the working people. Let representatives of the different trades, so far as possible, be employed to ascertain the wages and wants of the people in those trades.

As to the presentation of statistical matter, the utmost care should be exercised to give every modifying fact or figure due consideration; also to avoid alike ambiguities of statement and conclusions not warranted by the premises

given. The nicest discrimination was frequently necessary to distinguish between the truths and the apparent truths contained in figures. Although truthful enough in themselves, figures could easily be made dangerously mendacious and misleading. As far as possible, statistics should be permitted to tell their own story, regardless of whether they confirm preconceived opinions or not. The text should merely interpret the relative significance and value of the figures. Special care should be taken in the deduction of averages. As frequently computed they are misleading, because of the lack of uniformity in the data upon which they are based. No two iron mills, for instance, are exactly the same in matters of detail, and the utmost variety prevails in minor matters in all kinds of business. Unless exactly parallel data are obtained the average will be invalidated. He thought a truer criterion in industrial affairs could be established by the study of representative establishments in each industry, and of representative men and families in the different occupations.

He also advocated the liberal use of explanatory notes in connection with all tables where any uncertainty could possibly arise—illustrating their importance by reference to the common ambiguity arising from the use of the word “ton.” Unless it were clearly stated which of four standard “tons” was referred to the whole matter of a table would be clouded in obscurity.

Mr. Wright, of Massachusetts, said that much of the value of statistical work rested upon the manner in which it was presented; and the great desideratum was a clearly defined arrangement and classification of tables and subjects. He had early learned the advantage of a subdivision of the matter contained in a report into distinctive “Parts,” each of which should cover a general subject and embrace “chapters” on specific branches of that subject. This arrangement greatly facilitated reference, and conveyed at a glance a good general idea of the contents of the volume.

In the management of tables there is a great diversity of practice, but the consideration of first importance should be to present a table in such a way as to make it most readily comprehended. For this purpose tables should be drafted to fit, if possible, the upright page; and the head lines should, when space permits, be arranged to read horizontally with the page. It is always an annoyance to have to turn a volume in the hand to read the legend at the head of a column of figures, and even more so to reverse the page to read a “broad-side” table. He preferred, if necessary, to extend a table across two upright pages, and to widen the columns for the better display of headings. Another matter of detail, yet of essential consequence, was the performing of all calculations which the tables admitted of or required in order to make their meaning clear, such as the footing of columns and the deducing of averages or percentages. The English and some other reports were noticeably deficient in this respect. Columns of figures were presented which conveyed no intelligence to the reader except as to the statistical units comprising the column. No summaries or computations of averages were given, and the statement was thus left in total obscurity as to its general bearings. It is too much to expect the reader to foot up columns of printed figures, or make computations which should have been done by the compiler. Clear and concise statements of ultimate conclusions were especially important to the press, which is really the most potent ally the statistical bureau has. It is through press notices and comments that reports are really brought before the people. The report itself can have no such distribution as even one average daily paper. It is, in fact, the mere historic record for preservation. Consequently, its matter should be

so prepared and arranged that the salient features of it can be readily grasped and presented in popular form by the newspapers of the day.

It is the custom of the Massachusetts bureau to send to all the great dailies of the country advance sheets of reports, with a request to withhold comment until a given date when the volume is to be ready for distribution. In this way simultaneous notices appear in all parts of the country, and the report is issued under the most favorable auspices.

Mr. Wright agreed with Mr. Weeks in regard to the value of foot-notes, and recommended their repetition with every table, if they were at all necessary to a perfect understanding of the context. He hardly thought, however, that the statistics of representative establishments would be so generally instructive as those taken from a great number, or, if possible, from all the establishments of a given industry. In the first place there was a liability to err in deciding what establishments were truly representative in all respects, and what men were average types of their classes. In his opinion it was very desirable to obtain the record of as great a number of firms or persons as possible. Although there might not be exact uniformity in the details obtained, many legitimate deductions could always be made which were valuable, and substantially true.

The hour having arrived for the address of Professor Atwater of the Wesleyan University, Middletown, Conn., that gentleman was introduced to the convention as a scientist who had been prosecuting some very interesting investigations as to the life-sustaining qualities of various articles of food. His researches from a chemical standpoint had confirmed in a singular manner the results reached by Mr. Atkinson, reasoning from a statistical standpoint, as to the essentials of a standard ration.

## THE CHEMISTRY AND ECONOMY OF FOODS.

PAPER BY PROF. W. O. ATWATER.

It is an interesting fact that, although the cost of food makes up the larger part of the living expenses of ordinary people, even the most intelligent know less of the actual value of their food for fulfilling its purposes than of that of almost any other of the staple necessities of life. The man who buys a coat has generally a pretty fair idea as to the relation between its value and its cost, and if he is getting material to have it made, he knows about how much of each kind is wanted, and does not fall into the error of buying a great deal more cloth than he needs for the outside and using part of the excess for lining when cheaper material would do as well or better, nor does he try to economize by buying poor buttons and too little thread. But for his food he is very apt to select materials which furnish some of the nutritive ingredients at needlessly high cost, and in excessive amount, while they supply others in insufficient quantity and in very uneconomical ways.

If I succeed in making clear to you the points which I am here to urge, I believe you will be persuaded that not only our so-called laboring classes, but all who desire or are compelled to economize, would be greatly benefited by a better understanding of the principles on which the economy of food is based, and by the application of those principles in the purchase and use of their aliment.

I think a careful study of the subject will show that among the many ways

in which our American habits of wastefulness manifest themselves, one of the worst is in the waste of food, and that this wastefulness is practiced by the poor as well as by the rich. It manifests itself in purchasing more than is needed, in using part of the excess to overload the alimentary organs and throwing the rest away, in using costly materials where less expensive ones would serve as well, in purchasing materials that are really dear but seem to be cheap, and in the false economy of using too little of one material and too much of another, and thus losing where there is an earnest attempt to save. And it is not only the loss to the purse from wrong selection of food in the market, but the loss to both purse and health by wrong keeping and cooking and using at home that is to be deplored, and ought to be avoided.

Then, too, we have to remember that it is the ignorant, and that means the poor, that suffer most from this improvidence, and when we consider still further the suffering that is endured from wrong use of food—and some of our wisest students of physiology and hygiene are persuaded that improper eating, and especially overeating, is a source of more disease than any other one thing; that what we may call the eating habit does, on the whole, more harm to health than the drinking habit,—I think we shall be persuaded that the subject of the nature and uses of food is one worthy of our most careful consideration.

A pound of lean beef, round steak freed from fat, for instance, and a quart of milk both contain about the same quantity, say a quarter of a pound, of actually nutritive material. But the pound of beef costs more than the quart of milk and is worth more as a part of a day's supply of food. The nutritive materials or nutrients, as we call them, in the lean meat, though the same quantity as in the milk, are different in quality, and of greater nutritive value.

We have here an illustration of a fundamental fact in the economy of foods, namely, that the differences in the values of different foods depend upon both the kinds and the amounts of the nutritive material which they contain. If, then, we would understand the nutritive value of foods, we must know, first of all, what they are composed of. Knowing this, we must next consider what the several food ingredients do in the body; what is the special work which each one of the different nutrients has to perform in building up our bodies and in supplying their wants. When, in addition to all this, we know how much of each class of nutrients our bodies require and our food materials contain, we shall be in condition to economize our foods as we do the other necessities of life.

Twenty-five years ago, indeed, I might say fifteen years ago, but comparatively little was known about these things, and for that matter our knowledge of them is still very far from complete. But, nevertheless, we do know to-day about how much of the different nutritive ingredients, or nutrients as they are called, our ordinary food materials contain, and we have a tolerably clear conception of the functions of these different ingredients in the nutrition of our bodies; and finally, a large amount of observation and experiment has told us about what proportions of the several classes of nutrients are required to meet the needs of people in different conditions of life.

#### LATER RESEARCH IN THE SCIENCE OF FOOD AND NUTRITION.

Among the numerous branches of biological research by no means the least interesting and important is the study of foods and nutrition. Within the past fifteen years especially, a very large amount of scientific labor has been devoted

to the investigation of the composition of foods and the function of their ingredients in the animal economy. Indeed, very few persons this side of the Atlantic have any just conception of the magnitude of this work and its result. And, though the most important problems are still unsolved, and must, because of their complexity, long remain so, yet enough has been done to give us a tolerably clear insight into the processes by which the food we eat supplies our bodily wants.

The bulk of our best definite knowledge of these matters comes from direct experiments, in which animals are supplied with food of various kinds, and the effects noted. The food, the excrement, solid and liquid, and in some cases the inhaled and exhaled air, are measured, weighed, and analyzed. Many trials have been made with domestic animals—horses, oxen, cows, sheep, goats, and swine—with dogs, rabbits, birds, and the like, and a large number also with human beings of both sexes and different ages. In the philosophical planning of the researches; in the ingenuity manifested in devising apparatus; in accuracy, thoroughness, patience, and persistence in the work, as well as in the distinguished genius of many of the workers, chemico-physiological science has assumed the highest rank among the sciences of our time; with the rest it has brought us where we can estimate the nutritive values of foods from their chemical composition, with so near an approach to accuracy that in Germany, where the best research is done, tables, giving in figures the composition and nutritive valuations of foods, have been prepared by eminent chemists and physiologists and are coming into general use.

#### HOW OUR FOOD SUPPLIES THE WANTS OF OUR BODIES.

Our food supplies the wants of our bodies in four ways:

##### *Food Furnishes—*

- 1, The material of which the body is made;
- 2, The material to repair the wastes of the body.

##### *Food is Consumed in the Body to—*

- 3, Produce heat to keep it warm;
- 4, Produce muscular and intellectual strength for work.

To understand how food does its work in the nourishment of our bodies we must recall the fact that our bodies and the materials that nourish them are both composed of a certain list of chemical elements which are combined in a great variety of compounds. These compounds we may divide into three groups—

- A. *Water.*
- B. *Organic compounds.*
- C. *Mineral compounds.*

About water we need here say very little. Of the mineral compounds, one of the most important is the phosphate of lime which makes the basis of bone. Phosphates, sulphates, and chlorides of potassium and sodium, and other mineral salts likewise, occur in our bodies and are essential not only to health, but even to life itself. But in studying food from the standpoint of its nutritive value, that is, value for supplying bodily wants, we have to do, chiefly, with the organic compounds. These we may roughly divide into three principal classes, and this classification will do for the organic compounds of both our food and our bodies.

I. *Protein compounds*, otherwise known as albuminoids, flesh formers, or “flesh substance.”

II. *Fats.*III. *Carbohydrates.*

This division answers very well so long as we are only making approximate estimates of the nutritive values of our foods, but when we study foods very accurately, and more especially when we come to the chemistry of the body, we find compounds which cannot very well be placed in either of these classes. Fortunately for our purpose, however, the proportion of these latter compounds in our foods and in our bodies is very small.\*

We have not as yet sufficiently accurate analyses to tell in just what proportions these compounds occur in the body. Very probably the body of an average healthy man, weighing 148 pounds, or with clothing 156 pounds, would contain something like the following quantities:

| <i>Weights of Compounds in Body.</i> |  | Pounds. |
|--------------------------------------|--|---------|
| Water.....                           |  | 89.5    |
| Protein, etc.....                    |  | 26.8    |
| Fats.....                            |  | 23.3    |
| Carbohydrates, etc.....              |  | 0.1     |
| Mineral matters.....                 |  | 8.3     |

148.0

Of course I do not mean to say that this is an exact statement of the amounts of these compounds in the body of any given man or of an ideal man. These figures are simply an attempt to show, in a general way, in about what proportions the compounds probably occur.

Such then is the composition of the body. These elements and compounds must come from the food. It is the food that furnishes the material of which the growing body of the child is built up, and as our tissues are being continually consumed by work, and thought, and worry, it is by food that they are restored; and finally it is our food that supplies the fuel by whose consumption the heat and strength of the body are maintained. Viewed from the standpoint of their uses in the nutrition of man, the constituents of ordinary foods may be succinctly classified as follows:

1. *Edible Substance*, e. g., the flesh of meats and fish, the shell contents of oysters, wheat flour.

2. *Refuse*, e. g., bones of meat and fish, the shells of oysters, bran of wheat. The edible substance consists of

1. *Water.*

2. *Nutritive Substance or Nutrients.*

Of the meat my butcher sends me, the fish I find in the market, and the other food upon my table, only a part serves to fulfil these purposes. The bone of my roast beef I do not use for food at all, and that of shad is worse than useless, because of the bother it makes me to get rid of it; it is only the edible portion that is of actual value to me as food, the rest being merely refuse. And when we come to consider the edible portion, the meat freed from bone and gristle, the flesh of the fish, or the flour as it is baked in bread, we find that these consist largely of water. And although water is indispensable, that in the meat or the potatoes on my table is of no more value for the support of my body than the same amount in milk, or in the glass of water by my plate.

Leaving out of account, then, the refuse and the water, we have the nutritive materials, or, as we may call them, the nutrients of our foods. Speaking

\* This classification leaves out of account numerous compounds of minor importance, including the so-called "nitrogenous extractives," which are the essential constituents of "extract of meat." See beyond.

as chemists and physiologists, we may say that our food supplies, besides mineral substances and water, three principal classes of nutritive ingredients or nutrients, viz., albuminoids, carbohydrates, and fats; and that these are transformed into the tissues and fluids of the body, muscle and fat, blood and bone, and are consumed to produce heat and force.

Let me speak in a little more detail of the compounds of which our foods are composed:

*Protein, so called, "flesh-formers," or "flesh substance."*—The terms protein, proteids, and albuminoids, are applied somewhat indiscriminately, in ordinary usage, to several or all of certain classes of compounds characterized by containing carbon, oxygen, hydrogen, and with them, nitrogen. The most important are the proteids, or albuminoids, of which albumen, the white of egg, fibrin of blood, casein of milk, myosin, the basis of muscle, and gluten of wheat, are examples. Allied to these, but occurring in smaller proportions in animal tissues and foods, are the gelatinoids, the nitrogenous compounds, that make the basis of connective and other tissues. Gelatin, whence the name gelatinoid (gelatin-like), is derived from some of these tissues, and may be taken as a type of the compound of this class. As these constituents are of similar constitution, and have similar, or nearly similar, uses in nutrition, it is customary to group them together as protein. What we should especially bear in mind, then, is that protein is a term applied to the nitrogenous constituents of our foods, and we shall see these are, in general, the most important, as they are the most costly, of the nutrients.

The muscular tissues of animals, and hence the lean portions of meat, fish, etc., contain small quantities of so-called nitrogenous extractives,—creatine, carnin, etc.,—which are the chief constituents of meat extract. These contribute materially to the flavor, and somewhat to the nutritive effect, of the foods containing them. They are not usually deemed of sufficient importance, however, to be grouped as a distinct class in tabular statements of the composition of foods.

*Fats.*—We have familiar examples of these in the fat of meat (tallow, lard), in the fat of milk, which makes butter, and in olive, cotton-seed, and other animal and vegetable oils. The fats consist of carbon, oxygen, and hydrogen, and contain no nitrogen. In nutritive value, as in cost, they rank next to the protein compounds. For some of the nutritive functions, indeed, the fats equal or exceed protein in importance.

*Carbohydrates.*—Starch, cellulose (woody fiber), sugar, and inosite ("muscle sugar"), and other similar substances, are called carbohydrates. Like the fats, they consist of carbon, oxygen and hydrogen; but they have less carbon and hydrogen, and more oxygen than the fats.

*Mineral Matters, or Ash.*—When vegetable or animal matters are burned, more or less incombustible material remains as ash. The ingredients which make the ash are called mineral matters, or, sometimes, salts. They are, for the most part, compounds of the elements, potassium, sodium, calcium and iron, with chlorine, sulphuric acid and phosphoric acid. Sodium, combined with chlorine, forms sodium chloride, or common salt. Calcium, with phosphoric acid, forms calcium phosphate, or phosphate of lime, the mineral basis of bones.

Our bodies, as I have already said, contain scores of compounds, many of which cannot be included in either of the above four classes. But the bulk of the compounds, exclusive of water, in the bodies of animals, as well as those

in the food by which they are nourished, may be classed with either protein, fats, carbohydrates, or mineral matters.

Animal foods, as meats, fish, etc., contain but little of carbohydrates, their chief nutrients being protein and fats. Milk, however, and some shell-fish, as oysters, scallops, etc., contain more or less of carbohydrates. Vegetable foods, as wheat, potatoes, etc., contain less protein, and consist largely of starch, sugar, cellulose and other carbohydrates, though nearly all contain more or less of fats.

#### HOW THE NUTRITIVE INGREDIENTS OF THE FOOD NOURISH THE BODY.

These different nutrients, as we have seen, have different offices in nourishing the body, in building up its tissues, repairing its wastes, and serving as fuel to produce animal heat, and muscular and intellectual energy. Just what is done by each class, exactly how they are transformed and used in the body, is not yet fully known. Still, we have to-day a tolerable fair idea of the principal parts played by each class of nutrients.

Suppose that I have for breakfast, beefsteak, bread and butter, and potatoes. The beef supplies me with considerable protein (in the lean meat) and fat. The butter is nearly all fat. The bread contains a little protein and fat, and the potatoes the same ingredients, but in still smaller proportions, the principal nutrients of both being starch, or carbohydrate.

A small part of the food passes through the body, undigested, and constitutes the excretion of the intestines. The larger portion is digested, taken into the blood and distributed through the body, where it does its work, is consumed, and finally given off as water and carbonic acid, by the lungs and skin, and as water, urea, etc., by the kidneys. So, then, the bulk of the protein, fats, and carbohydrates of my breakfast is digested, and, in the course of the day, the larger part of this digested material finds its way into my blood and is distributed through my body.

Part of the protein of the food serves to repair my muscles, tendons, skin and other organs that are being worn out by constant use. The rest is consumed, sooner or later,—no one knows exactly when, where, or how. Part is probably transformed into fat, and stored as fat in my body, and thus replaces fat that is consumed to keep me warm and to give my muscles strength for the work they have to do. And probably a part of the protein is changed into glycogen, a carbohydrate which occurs in the liver.

Part of the fat of the meat and bread is stored as fat in my body, and part is burned, yielding heat to keep me warm, and muscular energy as well. The chief use of the carbohydrates, the starch and sugar, of the bread and potatoes seems to be to serve for fuel though they are transformed into fats also. It is a matter of common experience that many people are made corpulent by eating sugar and starchy foods and grow lean when they avoid them.

By comparing the amounts of carbon, oxygen, hydrogen and nitrogen, actually found by experiments to be consumed by different individuals, and also noting the amount and composition of the food of different people, estimates have been made of the quantities of the several nutrients required by individuals of different classes under various conditions. Professor von Voit, of the University of Munich, for instance, who has made more extensive researches upon this subject, perhaps, than any one else, computes that a fair daily ration for a laboring man of average weight, at moderate work, would need to supply 4.2 ounces (0.26 lb.) of protein, 2 ounces (0.12) lb. of fats, and 17.6 ounces (1.12 lb.) of carbohydrates. Of course he may get on with less of either one, pro-



vided he has more of the others. But there is a minimum below which he cannot go without injury, and especially he must not have too little protein. He may have more protein and less carbohydrates or fats with no great harm, but with too little protein he will suffer, no matter how much carbohydrates his food may furnish.

#### CHEMICAL ANALYSIS OF FOODS.

Let us, then, notice what chemical analysis has to say of the amounts of the different nutrients in some of our ordinary foods. The tables beyond give results of analyses, the most of which are selected from a much larger number, performed in the chemical laboratory of Wesleyan University, at the instance of the Smithsonian Institution, for the Food Collection of the United States National Museum.

The details will, perhaps, be best explained by an example. The flesh, or edible portion, of a specimen of beef sirloin, of medium fatness, was analyzed and found to contain, approximately: Water, 60 per cent; protein, 20 per cent; fats, 19 per cent; mineral matters, 1 per cent. But when we buy our sirloin steak or roast, by the pound, as we ordinarily do, we get not only the flesh, the edible substance, but with it more or less bone, sinew, and other refuse matter. This specimen contained about one-fourth, or 25 per cent, of bone, and only three-fourths, or 75 per cent, of flesh. If, then, we are to consider the composition of the meat as we buy it, we must take the refuse matters into account. The proportions of the several ingredients, in both the edible portion and the whole piece above referred to, are shown in the following table:

|                         | In Flesh,<br>Edible<br>Portion. | In Meat<br>as bought,<br>Including<br>Refuse. |
|-------------------------|---------------------------------|---|
|                         | Per Cent.                       | Per Cent.                                     |
| Refuse, bones, etc..... | None.                           | 25  |
| Water.....              | 60                              | 45  |
| Protein.....            | 20                              | 15  |
| Fat.....                | 19                              | 14½   |
| Mineral matters.....    | 1                               | 0½  |
| Totals.....             | 100                             | 100   |

This very imperfect analysis may be stated in the following form, as is done in the tables beyond: \*

#### CONSTITUENTS OF SAMPLE OF BEEF, SIRLOIN.

| Food-material.                   | In Edible Portion, i. e., Flesh<br>Freed from Bone and<br>other Refuse. |            |            |         |                       | In Meat as Purchased, Including<br>both Edible Portion and Refuse. |                 |            |            |         |                    |
|----------------------------------|---|------------|------------|---------|-----------------------|--|-----------------|------------|------------|---------|--------------------|
|                                  | Water.  | Nutrients. | Nutrients. |         |                       | Refuse: Bones, etc.  | Edible Portion. |            |            |         |                    |
|                                  |   |            | Protein.   | Fats.   | Mineral mat-<br>ters. |  | Water.          | Nutrients. | Nutrients. |         |                    |
|                                  |   |            |            |         |                       |  |                 |            | Protein.   | Fats.   | Mineral<br>matter. |
|                                  | Pr. ct.   | Pr. ct.    | Pr. ct.    | Pr. ct. | Pr. ct.               | Pr. ct.  | Pr. ct.         | Pr. ct.    | Pr. ct.    | Pr. ct. |                    |
| Beef, sirloin, med. fatness..... | 60  | 40         | 20         | 19      | 1                     | 25   | 45              | 30         | 15         | 14.3    | 0.7                |

\* The tables contain also columns for carbohydrates, etc., which occur in milk and in some shellfish, but are not found in ordinary meats in sufficient amount to warrant their insertion in such statements as this.

Tables I. and II., herewith, give the composition of a number of animal foods, mostly from late American analyses. It is only a short time since analyses of American meats, fish, etc., have been undertaken in any considerable number, and those as yet accomplished are far from sufficient for a complete survey of the subject. Indeed, the work already done can be regarded only as a beginning. Still, the figures will give a tolerably fair idea of the composition of the articles named. Table III. gives analyses of vegetable foods and beverages.

TABLE I.

*Composition of Animal Foods,—Edible Portion—Flesh, Etc., Freed from Bone, Shells and other Refuse.*

| Kinds of Food-materials.<br>(Italics indicate European analyses,<br>the rest are American.) | Water.    | Nutrients. | Nutrients.                     |           |                     |                |
|---|-----------|------------|--------------------------------|-----------|---------------------|----------------|
|   |           |            | Protein<br>(albumin-<br>oids.) | Fats.     | Carbohy-<br>drates. | Ash.           |
|   | Per cent. | Per cent.  | Per cent.                      | Per cent. | Per cent.           | Per cent.      |
| <b>MEATS—Fresh.</b>   |           |            |                                |           |                     |                |
| Beef, side, well fattened.....  | 54.6      | 45.4       | 17.2                           | 27.2      | .....               | 1.0            |
| Beef, lean, nearly free from fat.....   | 76.0      | 24.0       | 21.8                           | 0.9       | .....               | 1.3            |
| Beef, round,* rather lean.....  | 66.7      | 33.3       | 24.0                           | 9.0       | .....               | 1.3            |
| Beef, sirloin,* rather fat.....   | 60.0      | 40.0       | 20.0                           | 19.0      | .....               | 1.0            |
| Beef, neck,* "second cut".....  | 64.5      | 35.5       | 19.9                           | 14.5      | .....               | 1.1            |
| Beef, liver.....  | 69.5      | 30.5       | 20.1                           | 5.4       | 3.5                 | 1.5            |
| Beef, tongue.....   | 63.5      | 36.5       | 17.4                           | 18.0      | .....               | 1.1            |
| Beef, heart.....  | 56.5      | 43.5       | 16.3                           | 26.2      | .....               | 1.0            |
| <i>Veal, lean</i> .....   | 78.8      | 21.2       | 19.9                           | 0.8       | .....               | (0.5)          |
| <i>Veal, rather fat</i> .....   | 72.3      | 27.7       | 18.9                           | 7.5       | .....               | 1.3            |
| Mutton, side, well fattened.....  | 45.9      | 54.1       | 14.7                           | 38.7      | .....               | 0.7            |
| Mutton, leg*.....   | 61.8      | 38.2       | 18.3                           | 19.0      | .....               | 0.9            |
| Mutton, shoulder*.....  | 58.6      | 41.4       | 18.1                           | 22.4      | .....               | 0.9            |
| Mutton, loin (chops).....   | 49.3      | 50.7       | 15.0                           | 35.0      | .....               | 0.7            |
| <b>MEATS—Prepared.</b>  |           |            |                                |           |                     |                |
| Dried beef.....   | 58.6      | 41.4       | 30.3                           | 4.4       | .....               | 6.7            |
| Corned beef, rather lean.....   | 58.1      | 41.9       | 13.3                           | 26.6      | .....               | 2.0            |
| Smoked ham.....   | 41.5      | 58.5       | 16.7                           | 39.1      | .....               | 2.7            |
| Pork, bacon, salted.....  | 10.0      | 90.0       | 3.0                            | 89.5      | .....               | 6.5            |
| <b>FOWL.</b>  |           |            |                                |           |                     |                |
| Chicken, rather lean.....   | 72.2      | 27.8       | 24.4                           | 2.0       | .....               | 1.4            |
| Turkey, medium fatness.....   | 66.2      | 33.8       | 23.8                           | 8.7       | .....               | 1.3            |
| Goose, fat.....   | 38.0      | 62.0       | 15.9                           | 45.6      | .....               | 0.5            |
| <b>DAIRY PRODUCTS, EGGS, ETC.</b>   |           |            |                                |           |                     |                |
| <i>Cow's milk</i> .....   | 87.4      | 12.6       | 3.4                            | 3.8       | 4.8                 | 0.7            |
| <i>Cow's milk, skimmed</i> .....  | 90.7      | 9.3        | 3.1                            | 0.7       | 4.8                 | 0.7            |
| <i>Cow's milk, buttermilk</i> .....   | 90.3      | 9.7        | 4.1                            | 0.9       | 4.0                 | 0.7            |
| <i>Cow's milk, whey</i> .....   | 93.2      | 6.8        | 0.9                            | 0.2       | 5.0                 | 0.7            |
| Cheese, whole milk.....   | 31.2      | 68.8       | 27.1                           | 35.4      | 2.4                 | 3.9            |
| Cheese, skimmed milk.....   | 41.3      | 58.7       | 38.3                           | 6.8       | 9.0                 | 4.6            |
| Butter.....   | 9.0       | 91.0       | 1.0                            | 87.5      | 0.5                 | 2.0            |
| Hen's eggs.....   | 73.1      | 26.9       | 13.4                           | 11.8      | 0.7                 | 1.0            |
| <b>FISH, ETC.</b>   |           |            |                                |           |                     |                |
| Flounder, whole.....  | 84.2      | 15.8       | 13.8                           | 0.7       | .....               | 1.3            |
| Haddock, dressed.....   | 81.4      | 18.6       | 17.1                           | 0.3       | .....               | 1.2            |
| Bluefish, dressed.....  | 78.5      | 21.5       | 19.0                           | 1.2       | .....               | 1.3            |
| Cod, dressed.....   | 82.6      | 17.4       | 15.8                           | 0.4       | .....               | 1.2            |
| Whitefish, whole.....   | 60.8      | 39.2       | 22.1                           | 6.5       | .....               | 1.6            |
| Shad, whole.....  | 70.6      | 29.4       | 18.5                           | 9.5       | .....               | 1.4            |
| Mackerel, average, whole.....   | 71.6      | 28.4       | 18.8                           | 8.2       | .....               | 1.4            |
| Salmon, whole.....  | 63.6      | 36.4       | 21.6                           | 13.4      | .....               | 1.4            |
| Salt cod.....   | 53.8      | 46.2       | 21.7                           | 0.3       | .....               | Salt, 20.1 4.1 |
| Smoked herring.....   | 34.5      | 65.5       | 36.4                           | 15.8      | .....               | 11.7 1.6       |
| Salt mackerel.....  | 42.2      | 57.8       | 22.1                           | 22.6      | .....               | 10.6 2.5       |
| Oysters.....  | 87.2      | 12.8       | 6.0                            | 1.2       | 3.6                 | 2.0            |
| Scallops.....   | 80.3      | 19.7       | 14.7                           | 0.2       | 3.4                 | 1.4            |

\* Portions of the side of which analysis is given above.

TABLE II.

*Composition of Animal Foods.—Specimens as Purchased in the Markets (including both Edible Portion and Refuse).*

| Kinds of Food-materials.<br><br>( <i>Italics indicate European analyses, the rest are American.</i> ) | Refuse: bones, skins, shells, etc. | Edible Portion. |            |                        |           |                     |                  |
|---|------------------------------------|-----------------|------------|------------------------|-----------|---------------------|------------------|
|   |                                    | Water.          | Nutrients. | Nutrients.             |           |                     |                  |
|   |                                    |                 |            | Protein (albuminoids.) | Fats.     | Carbohydrates, etc. | Mineral matters. |
|   | Per cent.                          | Per cent.       | Per cent.  | Per cent.              | Per cent. | Per cent.           | Per cent.        |
| <b>MEATS—Fresh.</b>   |                                    |                 |            |                        |           |                     |                  |
| Beef, side, well fattened.....  | 19.7                               | 43.8            | 36.5       | 14.4                   | 21.3      | -----               | 0.8              |
| Beef, round, rather lean.....   | 10.0                               | 60.0            | 30.0       | 20.7                   | 8.1       | -----               | 1.2              |
| Beef, sirloin, rather fat.....  | 25.0                               | 45.0            | 30.0       | 15.0                   | 14.3      | -----               | 0.7              |
| Beef, neck, "second cut".....   | 19.0                               | 52.2            | 28.8       | 16.2                   | 11.7      | -----               | 0.9              |
| Beef, tongue.....   | 15.3                               | 54.0            | 30.7       | 14.5                   | 15.4      | -----               | 0.8              |
| Beef, heart.....  | 6.0                                | 53.4            | 40.6       | 14.8                   | 24.8      | -----               | 1.0              |
| Mutton, side, well fattened....   | 20.0                               | 42.9            | 37.1       | 13.2                   | 23.2      | -----               | 0.7              |
| Mutton, leg.....  | 18.4                               | 50.4            | 31.2       | 15.0                   | 15.5      | -----               | 0.7              |
| Mutton, shoulder.....   | 16.8                               | 48.7            | 34.5       | 15.0                   | 18.7      | -----               | 0.8              |
| Mutton, loin (chops).....   | 16.3                               | 41.3            | 42.4       | 12.5                   | 29.3      | -----               | 0.6              |
| <b>MEATS—Prepared.</b>  |                                    |                 |            |                        |           |                     |                  |
| Dried beef.....   | 6.5                                | 55.5            | 38.0       | 27.4                   | 4.2       | -----               | 6.4              |
| Corned beef, rather lean.....   | 6.2                                | 54.5            | 39.3       | 12.5                   | 24.9      | -----               | 1.9              |
| Smoked ham.....   | 12.5                               | 36.3            | 51.2       | 14.6                   | 34.2      | -----               | 2.4              |
| Pork, bacon, salt.....  | 5.0                                | 9.5             | 85.5       | 2.8                    | 76.5      | -----               | 6.2              |
| <b>FOWL.</b>  |                                    |                 |            |                        |           |                     |                  |
| Chicken, rather lean.....   | 41.6                               | 42.2            | 16.2       | 14.2                   | 1.2       | -----               | 0.8              |
| Turkey, medium fatness.....   | 35.4                               | 42.8            | 21.8       | 15.4                   | 5.6       | -----               | 0.8              |
| <b>DAIRY PRODUCTS, EGGS, ETC.</b>   |                                    |                 |            |                        |           |                     |                  |
| <i>Cow's milk</i> .....   | -----                              | 87.4            | 12.6       | 3.4                    | 3.7       | 4.8                 | 0.7              |
| <i>Cow's milk, skimmed</i> .....  | -----                              | 90.7            | 9.3        | 3.1                    | 0.7       | 4.8                 | 0.7              |
| <i>Cow's milk, buttermilk</i> .....   | -----                              | 90.3            | 9.7        | 4.1                    | 0.9       | 4.0                 | 0.7              |
| <i>Cow's milk, whey</i> .....   | -----                              | 93.2            | 6.8        | 0.9                    | 0.2       | 5.0                 | 0.7              |
| <i>Cheese, whole milk</i> .....   | -----                              | 31.2            | 68.8       | 27.1                   | 35.4      | 2.4                 | 3.9              |
| <i>Cheese, skimmed milk</i> .....   | -----                              | 41.3            | 58.7       | 38.3                   | 6.8       | 9.0                 | 4.6              |
| <i>Butter</i> .....   | -----                              | 9.0             | 9.1        | 1.0                    | 87.5      | 0.5                 | 2.0              |
| <i>Hen's eggs</i> .....   | 13.7                               | 63.1            | 23.2       | 11.6                   | 10.2      | 0.6                 | 0.8              |
| <b>FISH, ETC.</b>   |                                    |                 |            |                        |           |                     |                  |
| Flounder, whole.....  | 66.8                               | 27.2            | 6.0        | 5.2                    | 0.3       | -----               | 0.5              |
| Haddock, dressed.....   | 51.0                               | 40.0            | 9.0        | 8.2                    | 0.2       | -----               | 0.6              |
| Bluefish, dressed.....  | 48.6                               | 40.3            | 11.1       | 9.8                    | 0.6       | -----               | 0.7              |
| Cod, dressed.....   | 30.0                               | 58.4            | 11.6       | 10.6                   | 0.2       | -----               | 0.8              |
| Whitefish, whole.....   | 53.5                               | 32.5            | 14.0       | 10.3                   | 3.0       | -----               | 0.7              |
| Shad, whole.....  | 50.1                               | 35.2            | 14.7       | 9.2                    | 4.8       | -----               | 0.7              |
| Mackerel, average, whole.....   | 44.6                               | 40.4            | 15.0       | 10.0                   | 4.3       | -----               | 0.7              |
| Salmon, whole.....  | 35.3                               | 40.6            | 24.1       | 14.6                   | 8.8       | -----               | 1.0              |
| Salt cod.....   | 24.9                               | 40.3            | 19.4       | 16.0                   | 0.4       | -----               | Salt, 15.4 3.0   |
| Smoked herring.....   | 44.4                               | 19.2            | 29.9       | 20.2                   | 8.8       | -----               | 6.5 0.9          |
| Salt mackerel.....  | 33.3                               | 28.1            | 32.5       | 14.7                   | 15.1      | -----               | 7.1 1.7          |
| Oysters in shell.....   | 82.3                               | 15.4            | 2.3        | 1.1                    | 0.2       | 0.6                 | 0.4              |
| Oysters, solids.....  | -----                              | 87.2            | 12.8       | 6.3                    | 1.6       | 4.0                 | 0.9              |
| Scallops, edible portion.....   | -----                              | 80.3            | 19.7       | 14.7                   | 0.2       | 3.4                 | 1.4              |

TABLE III.

*Constituents of Vegetable Foods and Beverages.*

| Kinds of Foods and Beverages. | Water.    | Nutrients.                     |           |                          |                 |                     |
|-------------------------------|-----------|--------------------------------|-----------|--------------------------|-----------------|---------------------|
|                               |           | Protein<br>(albumin-<br>oids.) | Fats.     | Carboly-<br>drates, etc. | Woody<br>fibre. | Mineral<br>matters. |
| FOODS.                        | Per cent. | Per cent.                      | Per cent. | Per cent.                | Per cent.       | Per cent.           |
| Wheat flour, average *        | 11.6      | 11.1                           | 1.1       | 75.4                     | 0.2             | 0.6                 |
| Wheat flour, maximum *        | 13.5      | 13.5                           | 2.0       | 78.5                     | 1.2             | 1.5                 |
| Wheat flour, minimum *        | 8.3       | 8.6                            | 0.6       | 68.3                     | 0.1             | 0.3                 |
| Graham flour (wheat).....     | 13.0      | 11.7                           | 1.7       | 69.9                     | 1.9             | 1.8                 |
| Cracked wheat.....            | 10.4      | 11.9                           | 1.7       | 74.6                     |                 | 1.4                 |
| Rye flour.....                | 13.1      | 6.7                            | 0.8       | 78.3                     | 0.4             | 0.7                 |
| Pearled barley.....           | 11.8      | 8.4                            | 0.7       | 77.8                     | 0.3             | 1.0                 |
| Buckwheat flour.....          | 13.5      | 6.5                            | 1.3       | 77.3                     | 0.3             | 1.1                 |
| Buckwheat "farina".....       | 11.2      | 3.3                            | 0.3       | 84.7                     | 0.1             | 0.4                 |
| Buckwheat "groats".....       | 10.6      | 4.8                            | 0.6       | 83.1                     | 0.2             | 0.6                 |
| Oatmeal.....                  | 7.7       | 15.1                           | 7.1       | 67.2                     | 0.9             | 2.0                 |
| Maize meal.....               | 14.5      | 9.1                            | 3.8       | 69.2                     | 1.8             | 1.6                 |
| Hominy.....                   | 13.5      | 8.3                            | 0.4       | 77.1                     | 0.3             | 0.4                 |
| Rice.....                     | 12.4      | 7.4                            | 0.4       | 79.2                     | 0.2             | 0.4                 |
| Beans.....                    | 13.7      | 23.2                           | 2.1       | 53.7                     | 3.7             | 3.6                 |
| Pease.....                    | 15.0      | 23.9                           | 1.8       | 52.4                     | 5.4             | 2.5                 |
| Potatoes.....                 | 75.5      | 2.0                            | 0.2       | 20.7                     | 0.8             | 1.0                 |
| Sweet potatoes.....           | 75.8      | 1.5                            | 0.4       | 20.0                     | 1.1             | 1.2                 |
| Turnips.....                  | 91.2      | 1.0                            | 0.2       | 6.0                      | 0.9             | 0.7                 |
| Carrots.....                  | 87.9      | 1.0                            | 0.2       | 8.9                      | 1.2             | 0.8                 |
| Cabbage.....                  | 90.0      | 1.9                            | 0.2       | 4.9                      | 1.8             | 1.2                 |
| Cauliflower.....              | 90.4      | 2.5                            | 0.4       | 5.0                      | 0.9             | 0.8                 |
| Melons.....                   | 95.2      | 1.1                            | 0.6       | 1.4                      | 1.1             | 0.6                 |
| Pumpkins.....                 | 90.0      | 0.7                            | 0.1       | 7.3                      | 1.3             | 0.6                 |
| Apples.....                   | 84.8      | 0.4                            | 0.0       | 12.8                     | 1.5             | 0.5                 |
| Pears.....                    | 83.0      | 0.4                            | 0.0       | 12.0                     | 4.3             | 0.3                 |
| Starch.....                   | 15.1      | 1.2                            | 0.0       | 83.3                     | 0.0             | 0.4                 |
| Cane-sugar.....               | 2.2       | 0.3                            | 0.0       | 96.7                     | 0.0             | 0.8                 |
| Wheat bread†.....             | 32.7      | 8.9                            | 1.9       | 55.5                     |                 | 1.0                 |
| Graham bread.....             | 34.2      | 9.5                            | 1.4       | 53.3                     |                 | 1.6                 |
| Rye bread.....                | 30.6      | 8.4                            | 0.5       | 59.7                     |                 | 1.4                 |
| Soda crackers.....            | 8.0       | 10.3                           | 9.4       | 70.5                     |                 | 1.8                 |
| "Boston" crackers.....        | 8.3       | 10.7                           | 9.9       | 68.7                     |                 | 2.4                 |
| "Oyster" crackers.....        | 3.9       | 12.3                           | 4.8       | 76.5                     |                 | 2.5                 |
| Oatmeal crackers.....         | 4.9       | 10.4                           | 13.7      | 69.6                     |                 | 1.4                 |
| Pilot (bread) crackers.....   | 7.9       | 12.4                           | 4.4       | 74.2                     |                 | 1.1                 |
| Macaroni.....                 | 13.1      | 9.0                            | 0.3       | 76.8                     |                 | 0.8                 |
| BEVERAGES.                    |           |                                | Alcohol.  |                          | Free<br>acid.   |                     |
| Lager beer.....               | 90.3      | 0.5                            | 4.0       | 6.6                      |                 | 0.2                 |
| Porter and ale.....           | 88.5      | 0.7                            | 5.2       | 7.2                      |                 | 0.3                 |
| Rhenish wine, white.....      | 86.3      |                                | 10.5      | 2.6                      | 0.4             | 0.2                 |
| Rhenish wine, red.....        | 86.9      |                                | 8.9       | 3.4                      | 0.5             | 0.3                 |
| French wine, claret.....      | 88.4      |                                | 8.1       | 2.7                      | 0.6             | 0.2                 |

\* Of analyses of American flours.

† From flour of about average composition.

The analyses of foods in Roman letters are American, those of foods and beverages in *Italics* are European.

The figures of Tables I. and II., with the exception of a few from European sources and indicated by italics, are selected from the results of the investigation referred to above, as conducted under the auspices of the Smithsonian Institution and the United States Fish Commission. The specimens of meats were purchased from a dealer in Middletown, Conn., and said by him to be "fair average samples of the better kinds of meats." A side of beef, freshly brought in winter from Chicago, and said to be a fair specimen of the best quality of "Chicago beef," was cut into about twenty-five pieces in the ordinary way. From each a sample fairly representing the whole cut was taken and analyzed. Thus the composition of each piece and of the whole side was learned. The composition of one of the leanest portions, the round, a moderately fat piece, sirloin, a very fat portion, flank, and of the whole side, together with a tongue, liver, and heart from another animal, are given in the table. The samples of a side of mutton and of parts of the same side were obtained and analyzed in like manner, as were those of the other meats and fowls. The specimens of cheese were from Washington market, New York, the analyses in the table representing averages of several samples. The butter was from a Vermont dairy. Some of the specimens of fish were purchased in Middletown, the most, however, were furnished gratuitously from Fulton market, New York, by Mr. E. G. Blackford, Fish Commissioner of the State of New York, who also contributed to the pecuniary expense of the investigation, as did likewise Mr. A. R. Crittenden of Middletown. A considerable number of the specimens whose analyses are given in this table, and in the tables beyond, were furnished by Mr. F. B. Thurber, of New York, who also contributed a considerable sum toward defraying the cost of the research, as did also Hon. J. W. Alsop, M. D., of Middletown, Conn. It may be added that the figures in Tables I., II., and III. (aside from those from European sources) are selected from the results of nearly three hundred analyses of American food-materials, of which some two hundred are of fish and invertebrates.

Table III. gives analyses of vegetable food-materials and beverages. The figures for wheat flour represent the results of forty-nine analyses of American flours, of which the majority were analyzed under the direction of Prof. Brewer, and the rest collated by him from other sources for the "Report of the United States Census, 1880." The largest and the smallest percentages of each ingredient found in the analyses are given opposite "maximum" and "minimum." The specimens of bread, crackers, etc., were purchased and analyzed at Middletown, Conn., and have probably about the usual composition of such materials.

I have said so much by way of introduction to the tables, that it may be hardly advisable to discuss their contents at much length. Nor will this be necessary, for the figures themselves tell their own stories, and very plainly. Only a glance is needed to show, for instance, that fish as found in the markets generally contain more refuse, bone, skin, etc., than meats, as is illustrated in Tables I. and II. With the larger proportions of both refuse and water, the proportions of nutrients, though variable, are usually much less than in meats. Thus a sample of flounder contained sixty-seven per cent of refuse, twenty-eight of water, and only five per cent of nutritive substance, while the salmon averaged twenty-three, the salt cod twenty-two, and the salt mackerel thirty-six per cent of nutrients. The nutrients in meats ranged from thirty per cent in beef to forty-six in mutton, and eighty-seven and a

half in very fat pork (bacon). The canned fish compare very favorably with the meats. It is worth noting that the nutrients in fresh codfish, dressed, in oysters, edible portion, and in milk, all were nearly the same in amount—about twelve and a half per cent, though differing in kind and proportions.

Vegetable foods have generally less water and more nutrients than animal foods. Ordinary flour, meal, etc., contain from eighty-five to ninety per cent or more of nutritive material. But the nutritive values are not exactly proportional to the quantity of nutrients, because the vegetable foods contain but little protein and consist mostly of carbohydrates, starch, sugar, cellulose, etc., which are of inferior nutritive value, and because the protein they do contain is less digestible than that of animal foods. Potatoes contain a large amount of water, and extremely little protein or fats.

I wish to call attention to two more things concerning the composition of fish:

1st. The chief difference between the flesh of fish and ordinary meats is, that the fish generally contains less fat and more water. The fat contained in the meats is, in the fish, replaced to a considerable extent by water. On this account, the flesh of fish has, generally, a lower nutritive value, pound for pound, than ordinary meats. Fish, as we buy them, have the further disadvantage in comparison with meats, that they can contain larger percentages of refuse, bone, skin, entrails, etc., than meats.

2d. On the other hand, in the flesh of most fish, the nutritive material is nearly all protein. That is to say, fish supply the ingredient of food which is the most important, and, as we shall see, the most expensive of all.

There is one difficulty with the tables, namely, that the figures for the analyses apply to either single specimens or to averages of a number of specimens, and do not show the variations in the composition of the same food-material, which are often quite considerable. Two illustrations of this are given, the mackerel in Table IV., and the wheat flour in Table V. The figures for "maximum and minimum" in the latter show as above indicated, the largest and smallest percentages of each ingredient found in the forty-nine specimens of American wheat flour analyzed. Thus the percentages of water vary from eight and three-tenths to thirteen and five-tenths, the average being eleven and six-tenths per cent, while the protein varies from eight and six-tenths to thirteen and six-tenths, averaging eleven and one-tenth per cent.\*

I hope to give elsewhere, at a proper time, more detailed tables of analyses illustrating these differences in detail. It must be confessed, however, that the number of analyses thus far made are very far from sufficient to show at all completely the variations in the composition of our food-materials. Nevertheless, the figures in the tables give a tolerably accurate idea of the composition of the food materials named.

#### DIGESTIBILITY OF FOODS.

The question of the digestibility of foods is a very complex and difficult one, and I have noticed that the men who know most about it are generally the least ready to make definite and sweeping statements as to the digestibility of this or that kind of food-material. One great difficulty is the fact that what we ordinarily call the digestibility of a food includes several different things,

\* Since the above tables were prepared, the results of a large series of analyses of American grain and milling products have been reported by Mr. Clifford Richardson of the United States Agricultural Department. While these are a most important contribution to our knowledge of the subject, the main results do not differ widely from those here given.

the ease with which it is digested, the time required for digesting it, and the proportions of its several constituents that are digested.

The ease of digestion and the suitableness of a food to the digestive organs of a given person are physiological rather than chemical questions, and, fortunately for myself, do not come within the scope of this lecture. The actual amounts digested are capable of more nearly accurate determination. Indeed, the percentage of the more important constituents of various foods actually digested by domesticated animals of different species, breeds, sexes, and ages, and under varying circumstances, has been a matter of active experimental investigation in the German agricultural experiment stations during the past twenty years. Briefly expressed, the method consists in weighing and analyzing both the food consumed and the solid excrement, which latter represents the amount of food undigested, the difference being the amount digested.

Such experiments upon human subjects, however, are rendered much more difficult by the necessity of avoiding complex mixtures of foods, in order that the digestibility of each particular food or food ingredient may be determined with certainty, and the fact that it is not easy to continue to eat the same kind of food long enough for a satisfactory experiment. No matter how palatable a simple food may be to a man at first, it has been found that it will almost certainly become repugnant to him after two or three days. In consequence, the digestive functions are disturbed, and the accuracy of the trial is impaired. In the experiments in question, it was quite exceptional to find persons, in any walk of life, who could continue to eat large quantities of simple, plain food for tolerably long periods—a fact, by the way, which strikingly illustrates and emphasizes the importance of a varied diet in ordinary life.

Notwithstanding the difficulties referred to, a considerable number of experiments have been carried out, the majority in the physiological laboratory of the University of Munich, Germany. The results of a number of these experiments are concisely set forth in the following table:

*Percentages of Undigested Matters in Food Materials.*

| Kinds of Food Eaten.                     | Percentage of the dry food lost as excrement. | Percentages of the   |  |
|--|---|--|--|
|  |   | *Nitrogen of the foods which go to waste in the excrement. | Carbohydrates of the foods which go to waste in the excrement. |
| Lean beef.....                           | 5 or 6  | 2 or 3   | .....  |
| Fish (haddock).....                      | 5 or 6  | 2 or 3   | .....  |
| Eggs.....                                | 5½  | 2½   | .....  |
| Milk.....                                | 8 to 10                                       | 7 to 12  | .....  |
| Milk, with cheese.....                   | 6 to 11                                       | 3 to 5   | .....  |
| Rice.....                                | 4   | 25   | 1  |
| Potatoes.....                            | 9½  | 32   | 7½   |
| Fat bacon, with some bread and beef..... | 8½ to 9½                                      | 12 to 14   | 2 to 6   |
| White bread (wheat).....                 | 3½ to 5½                                      | 19 to 25   | 1 to 1½  |
| Coarse rye-bread (black bread).....      | 15  | 32   | 11   |
| Cabbage.....                             | 15  | 18½  | 15½  |
| Yellow beets.....                        | 21  | 39   | 18   |

Thus the men upon whom the experiments were made digested all but 5 or 6 per cent of the whole dry matter (water-free substance) of the lean beef and the fish, and all but 2 per cent of their protein (nitrogen). Of the water-free substance of milk, a somewhat larger proportion passed through the body undigested. The vegetable foods were much less completely digested, the coarse rye bread and the beets, were, in this sense, the least digestible of all.

\* Protein.

## A.—COSTS OF PROTEIN.

A subject that has received but little attention in this country, though it has become a vital one in Europe, and is becoming so with us, is the cost of the nutritive material of our foods. The relative cheapness or dearness of different foods must be judged by comparing, not the prices per pound, but the costs of the actual nutrients. In making such comparisons, the cost may be assumed to fall, not upon the inedible portions and the water, but solely upon the three classes of nutrients, the protein, fats and carbohydrates. The relative physiological values of the nutrients in different foods depend upon (1) their digestibility and (2) their functions and the proportions in which they can replace each other in nutrition. An accurate physiological valuation is, in the present state of our knowledge, at least, impracticable. The pecuniary costs of the nutrients are, however, more nearly capable of approximation.

Various methods have been proposed for computing the relative pecuniary costs of the nutrients of foods, none of which, however, are entirely beyond criticism. The following, based upon German estimates of the relative costs of protein, fats and carbohydrates, is perhaps as satisfactory as any. They are those of Prof. Konig.

From extended comparisons of the composition and market prices of the more important animal and vegetable food materials, such as meats, fish, flour, etc., those which serve for nourishment and not as luxuries, and form the bulk of the food of the people, it has been estimated that a pound of protein costs, on the average, five times as much, and a pound of fat three times as much, as a pound of carbohydrates; that, in other words, these three classes of nutrients stand related to each other, in respect to cost, in the following proportions:

|   |                     |   |
|---|---------------------|---|
| <i>Assumed ratios of costs in staple foods.</i> | Protein .....       | 5 |
|   | Fats .....          | 3 |
|   | Carbohydrates ..... | 1 |

Perhaps a study of foods and prices in our markets might lead to a different scale of valuations, but this will serve our present purpose.

Suppose a pound of beef to cost 25 cents, and to contain 25 per cent of inedible matters, bone, etc., 45 per cent of water, and 30 per cent of nutritive substance, upon which latter—the bone and water being assumed to be without nutritive value—the whole cost comes. The 30 per cent or  $\frac{3}{10}$  pounds of nutritive substance thus costs 25 cents, or at the rate of 83 $\frac{1}{3}$  cents per pound. If, now, we leave out of account the minute quantities of carbohydrates and the mineral matters, the whole cost will fall upon the protein and fats. Assuming these to cost in the ratio of 5 : 3 and the amounts in the meats to be: Protein 15 per cent, and fats 14 $\frac{1}{2}$  per cent, an easy computation will show the protein to cost 106 cents and a pound of fats 64 cents.\*

\* The methods of computing the cost of protein and the amounts obtained for 25 cents in different foods are as follows:

1. *Cost of Protein*.—Suppose we wish to learn the costs of the nutrients in wheat flour, containing 11.1 per cent of protein, 1.1 per cent of fat, and 75.4 per cent of carbohydrates, and costing 4 cents a pound.

Let  $x$  represent the cost of a pound of carbohydrates in cents. Then, by the ratio of costs assumed above, a pound of fats would cost 3  $x$  cents and a pound of protein 5  $x$  cents. 100 pounds of the flour will cost 400 cents, and will contain 11.1 pounds of protein, 1.1 pounds of fats, and 75.4 pounds of carbohydrates. We shall have—

|         |                   |                                       |
|---------|-------------------|---------------------------------------|
|         | 75.4 $x$ cents=   | cost of 75.4 pounds of carbohydrates. |
|         | 3.3 $x$ cents=    | 1.1 " fats.                           |
|         | 55.5 $x$ cents=   | 11.1 " protein.                       |
| Totals, | 134.2 $x$ cents=  | " 100 " flour=400 cents.              |
| Whence: | $x$ = 3 cents,    | cost of carbohydrates per pound.      |
|         | 3 $x$ = 9 cents,  | " fats.                               |
|         | 5 $x$ = 15 cents, | " protein.                            |

2. *Amounts of Nutrients obtained for 25 cents*.—At 4 cents per pound for the flour, 25 cents will pay for 6.25 pounds. By the percentage composition above given 6.25 pounds of flour will contain 0.69 pound of protein, 0.07 pound of fats, and 4.71 pounds of carbohydrates, which are the amounts of nutrients obtained for 25 cents.



Of the different nutrients, protein is physiologically the most important, as it is pecuniarily the most expensive. For these reasons the cost of protein in different food-materials may be used as a means of comparing their relative cheapness or dearness, as is done in the following table. The figures represent the ordinary prices per pound and the corresponding costs of protein, in specimens of food-materials obtained in New York and Middletown, Conn., markets. Though the number of specimens is too small for reliable averages, the figures, taken together, doubtless give a tolerably fair idea of the relative costliness of the nutrients in the different classes of foods. It will of course be understood that the computations make allowance for the costs of the other nutrients, the fats and the carbohydrates, though for the sake of brevity the latter are omitted from the table.

*Comparative Cost of Protein in Food-Materials.*

| Food-Materials.                 | At<br>Prices<br>per<br>Pound. | Cost<br>of Protein<br>per<br>Pound. | Food-Materials.                 | At<br>Prices<br>per<br>Pound. | Cost<br>of Protein<br>per<br>Pound. |
|---------------------------------|-------------------------------|-------------------------------------|---------------------------------|-------------------------------|-------------------------------------|
|                                 | Cents.                        | Cents.                              |                                 | Cents.                        | Cents.                              |
| <i>Meats.</i>                   |                               |                                     |                                 |                               |                                     |
| Beef, sirloin.....              | 25                            | 106                                 | Cod.....                        | 6                             | 56                                  |
| Mutton, leg.....                | 22                            | 91                                  | Salt mackerel.....              | 12.5                          | 53                                  |
| Beef, sirloin.....              | 20                            | 86                                  | Salt cod.....                   | 7                             | 43                                  |
| Mutton, leg.....                | 20                            | 82                                  | Mackerel.....                   | 5                             | 40                                  |
| Mutton, side.....               | 20                            | 73                                  | Salt cod.....                   | 6                             | 37                                  |
| Beef, round.....                | 18                            | 70                                  | Salt cod.....                   | 5                             | 31                                  |
| Mutton, leg.....                | 16                            | 66                                  | Alewives.....                   | 3                             | 27                                  |
| Corned beef, lean.....          | 18                            | 66                                  | Smoked herring.....             | 6                             | 24                                  |
| Beef, round.....                | 15                            | 59                                  | <i>Dairy Products and Eggs.</i> |                               |                                     |
| Corned beef, lean.....          | 15                            | 55                                  | Eggs, 40 cts. per dozen.....    | 28                            | 157                                 |
| Smoked ham.....                 | 18                            | 51                                  | Eggs, 25 cts. per dozen.....    | 18                            | 101                                 |
| Smoked ham.....                 | 15                            | 43                                  | Eggs, 15 cts. per dozen.....    | 11                            | 62                                  |
| Corned beef, lean.....          | 10                            | 36                                  | Milk, 8 cts. per quart.....     | 4                             | 61                                  |
| Beef, flank*.....               | 15                            | 36                                  | Milk, 7 cts. per quart.....     | 3.5                           | 53                                  |
| Beef, neck.....                 | 08                            | 33                                  | Cheese, whole milk.....         | 18                            | 37                                  |
| Pork,* very fat, salted.....    | 16                            | 83                                  | Cheese, whole milk.....         | 13                            | 27                                  |
| Pork,* very fat, salted.....    | 12                            | 25                                  | Cheese, skimmed milk.....       | 8                             | 18                                  |
| <i>Fish.</i>                    |                               |                                     | <i>Vegetable Foods.</i>         |                               |                                     |
| Salmon.....                     | 100                           | 511                                 | Wheat bread.....                | 8                             | 38                                  |
| Oysters, 50 cts. per quart..... | 25                            | 336                                 | Rice.....                       | 9                             | 38                                  |
| Oysters, 40 cts. per quart..... | 20                            | 289                                 | Potatoes,* \$1.00 per bushel..  | 1.7                           | 30                                  |
| Oysters, 30 cts. per quart..... | 15                            | 202                                 | Wheat bread.....                | 6                             | 29                                  |
| Lobsters.....                   | 12                            | 202                                 | Potatoes,* 75 cts. per bushel   | 1.38                          | 22                                  |
| Salmon.....                     | 30                            | 153                                 | Wheat bread.....                | 4                             | 19                                  |
| Flounder.....                   | 8                             | 149                                 | Beans, 13 cts. per quart.....   | 6.5                           | 18                                  |
| Shad.....                       | 12                            | 99                                  | Wheat flour.....                | 4.5                           | 17                                  |
| Bluefish.....                   | 10                            | 98                                  | Wheat flour.....                | 4                             | 15                                  |
| Lake trout.....                 | 15                            | 92                                  | Oatmeal.....                    | 5                             | 15                                  |
| Halibut.....                    | 15                            | 85                                  | Beans, 10 cts. per quart.....   | 5                             | 14                                  |
| Haddock.....                    | 7                             | 84                                  | Potatoes,* 50 cts. per bushel   | 0.85                          | 13                                  |
| Mackerel.....                   | 10                            | 79                                  | Wheat flour.....                | 3.5                           | 13                                  |
| Cod.....                        | 8                             | 75                                  | Corn meal.....                  | 3                             | 12                                  |
| Canned salmon.....              | 20                            | 70                                  |                                 |                               |                                     |
| Shad.....                       | 8                             | 66                                  |                                 |                               |                                     |

\* Containing little protein, the chief value being in other ingredients.

Thus the nutrients of vegetable foods are, in general, much less costly than in animal foods. The animal foods have, however, the advantage of containing a larger proportion of protein and fats, and the protein, at least, in more digestible forms.

Among the animal foods, those which rank as delicacies are the costliest. By the above calculations, the protein in the oysters costs from two to three dollars, and in salmon rises to over five dollars per pound. In beef, mutton, and ham, it varies from 106 to 43 cents; in shad, bluefish, haddock, and halibut, the range is about the same; while in cod and mackerel, fresh and salted, it varies from 75 to as low as 31 cents per pound. Salt cod and salt mackerel are nearly always, fresh cod and mackerel often, and even the choicer fish, as bluefish and shad, when abundant, cheaper sources of protein than any but the inferior kinds of meat. Among meats, pork is the cheapest; but salt pork or bacon has the disadvantage of containing very little protein.

It is well worth the noting that oatmeal is one of the cheapest foods that we have; that is, it furnishes more nutritive material, in proportion to the cost, than almost any other. Corn meal is indeed cheaper, but the oatmeal has this great advantage over corn meal and wheat flour, that it has more protein. Of course, if we are to eat large quantities of lean meat—and most of us, I think, eat more than is best for our health, saying nothing of our purses, the extra protein in the oatmeal is of little consequence to us. But if one wishes to economize in his food, oatmeal, rightly cooked, affords an excellent material therefor.

One of the most interesting things brought out in the table is the cheapness of the staple vegetable food-materials, such as potatoes, wheat flour, corn meal, oat meal and beans.

#### B.—AMOUNTS OF NUTRIENTS OBTAINED FOR 25 CENTS IN DIFFERENT FOOD-MATERIALS.

The above method of computing the relative expensiveness of different kinds of food-materials is, as I have said, open to the objection that it is based upon a certain assumed ratio of relative costs of protein, fats, and carbohydrates, which may or may not be right in any given case. A method free from these objections consists in computing how much of the several nutrients may be obtained for a given sum, for instance, 25 cents, in different food-materials. This is done in the following table:

*Amount of Nutrients Furnished for 25 Cents in Food-Materials at Ordinary Prices.*

| Food-materials.                   | At prices per Pound. | 25 Cents will Pay for— |                    |          |       |                |      |
|-----------------------------------|----------------------|------------------------|--------------------|----------|-------|----------------|------|
|                                   |                      | Total Food-material.   | Nutrients.—Pounds. |          |       |                |      |
|                                   |                      |                        | Total.             | Protein. | Fats. | Carbohydrates. |      |
|                                   |                      | Cents.                 | Pounds.            |          |       |                |      |
| <i>Meats:</i>                     |                      |                        |                    |          |       |                |      |
| Beef, sirloin.....                | 25                   | 1.00                   | .29                | .15      | .14   | .....          |      |
| Mutton, leg.....                  | 22                   | 1.14                   | .34                | .17      | .17   | .....          |      |
| Beef, sirloin.....                | 20                   | 1.25                   | .37                | .19      | .18   | .....          |      |
| Mutton, leg.....                  | 20                   | 1.25                   | .38                | .19      | .19   | .....          |      |
| Beef, round.....                  | 18                   | 1.39                   | .40                | .29      | .11   | .....          |      |
| Mutton, side.....                 | 20                   | 1.25                   | .46                | .17      | .29   | .....          |      |
| Beef, round.....                  | 15                   | 1.67                   | .49                | .35      | .14   | .....          |      |
| Beef, neck, whole.....            | 8                    | 3.13                   | .92                | .48      | .44   | .....          |      |
| Pork, salted, fat.....            | 16                   | 1.56                   | 1.23               | .04      | 1.19  | .....          |      |
| Pork, salted, fat.....            | 12                   | 2.08                   | 1.65               | .06      | 1.59  | .....          |      |
| <i>Fish:</i>                      |                      |                        |                    |          |       |                |      |
| Salmon.....                       | 100                  | .25                    | .06                | .04      | .02   | .....          |      |
| Oysters, 50 cts. per quart.....   | 25                   | 1.00                   | .12                | .06      | .02   | .....          | .04  |
| Oysters, 35 cts. per quart.....   | 17.5                 | 1.42                   | .17                | .09      | .02   | .....          | .06  |
| Salmon.....                       | 30                   | .83                    | .19                | .12      | .07   | .....          |      |
| Bluefish.....                     | 10                   | 2.50                   | .27                | .25      | .02   | .....          |      |
| Shad.....                         | 12                   | 2.08                   | .29                | .19      | .10   | .....          |      |
| Cod.....                          | 8                    | 3.13                   | .34                | .33      | .01   | .....          |      |
| Mackerel.....                     | 10                   | 2.50                   | .35                | .25      | .10   | .....          |      |
| Canned salmon.....                | 20                   | 1.25                   | .44                | .25      | .19   | .....          |      |
| Shad.....                         | 8                    | 3.13                   | .44                | .29      | .15   | .....          |      |
| Cod.....                          | 6                    | 4.17                   | .45                | .44      | .01   | .....          |      |
| Salt cod.....                     | 7                    | 3.57                   | .58                | .57      | .01   | .....          |      |
| Salt mackerel.....                | 12.5                 | 2.00                   | .60                | .30      | .30   | .....          |      |
| Mackerel.....                     | 5                    | 5.00                   | .71                | .51      | .20   | .....          |      |
| Salt cod.....                     | 5                    | 5.00                   | .82                | .80      | .02   | .....          |      |
| Smoked herring.....               | 6                    | 4.17                   | 1.21               | .84      | .37   | .....          |      |
| <i>Dairy Products and Eggs:</i>   |                      |                        |                    |          |       |                |      |
| Butter.....                       | 30                   | .83                    | .73                | .....    | .73   | .....          |      |
| Milk, 8 cts. per quart.....       | 4                    | 6.25                   | .74                | .21      | .23   | .....          | .30  |
| Milk, 7 cts. per quart.....       | 3.5                  | 7.14                   | .84                | .24      | .26   | .....          | .34  |
| Cheese, whole milk.....           | 18                   | 1.39                   | .90                | .38      | .49   | .....          | .03  |
| Cheese, whole milk.....           | 15                   | 1.67                   | 1.08               | .45      | .59   | .....          | .04  |
| Cheese, skimmed milk.....         | 8                    | 3.13                   | 1.69               | 1.20     | .21   | .....          | .28  |
| <i>Vegetable Foods:</i>           |                      |                        |                    |          |       |                |      |
| Wheat bread.....                  | 8                    | 3.13                   | 2.08               | .23      | .06   | .....          | 1.74 |
| Wheat bread.....                  | 6                    | 4.17                   | 2.75               | .37      | .07   | .....          | 2.31 |
| Potatoes, \$1.00 per bushel.....  | 1.7                  | 3.24                   | 3.04               | .27      | .03   | .....          | 2.74 |
| Beans, 10 cts. per quart.....     | 5                    | 5.00                   | 3.96               | 1.16     | .11   | .....          | 2.69 |
| Potatoes, 75 cts. per bushel..... | 1.25                 | 18.00                  | 4.13               | .36      | .04   | .....          | 3.73 |
| Wheat bread.....                  | 4                    | 6.25                   | 4.15               | .56      | .12   | .....          | 3.47 |
| Oatmeal.....                      | 5                    | 5.00                   | 4.48               | .76      | .36   | .....          | 3.36 |
| Wheat flour.....                  | 4.5                  | 5.55                   | 4.83               | .62      | .06   | .....          | 4.15 |
| Wheat flour.....                  | 4                    | 6.25                   | 5.44               | .69      | .04   | .....          | 4.71 |
| Potatoes, 50 cts. per bushel..... | 0.85                 | 26.47                  | 6.06               | .53      | .05   | .....          | 5.48 |
| Indian meal.....                  | 3                    | 8.33                   | 6.90               | .70      | .29   | .....          | 5.91 |

Prof. Atwater, since the delivery of the above address, has submitted the following appendix for publication:

In the above address, as given, were included some statements regarding daily rations, which constituted a practical application of the principles above set forth. At the request of Mr. Edward Atkinson, who desired the material to incorporate in an address to be given by himself as chairman of the Section of Economic Science and Statistics of the American Association for the Advancement of Science, I dictated the substance of the statements to a stenographer, being too much pressed for time to give to the preparation the care properly belonging to an article intended for publication, and appended a translation of a German dietary and some estimates for daily rations of food-materials of the composition of those given in the tables, the latter prepared by my assistant, Mr. Rockwood. The matter in this form is reproduced here.

## STANDARDS FOR DAILY RATIONS.

In answer to the question "What should be the standard for a daily ration?" it may be said that the ordinarily accepted standards are estimated in terms of the three most important classes of the nutritive ingredients, or nutrients of food: (1) protein, or albuminoids; (2) fats; (3) carbohydrates.

Our best information upon this subject comes from Germany, accurate observations and experiments having been there made by Liebig, Molescott, Pettenkofer, Voit, and others. Payen, in France, and Frankland, Playfair, Lawes, and Gilbert, in England, have also made most valuable contributions to the knowledge upon this subject.

I cannot forbear noting the fact, however, that very little attention appears to have been paid to the results of these experiments on this side of the Atlantic, or, for that matter, in England. Even in some of the best text books in chemistry and physiology, those which are looked upon as most authoritative are too apt to pass the subject over most superficially, or almost to ignore it.

The standard rations assumed by Prof. Voit of Munich are more commonly accepted than any others, and are most frequently quoted and followed in estimating dietaries. The following are standards adopted by the Munich school of physiological chemists who follow Voit:

*Standards for Daily Rations.*

|                                    | Protein. | Fats.    | Carbohydrates |
|------------------------------------|----------|----------|---------------|
|                                    | Grammes. | Grammes. | Grammes.      |
| Children to 1½ years.....          | 20-36    | 30-45    | 60-90         |
| Children from 6 to 15 years.....   | 70-80    | 37-50    | 250-400       |
| Laboring man at moderate work..... | 118      | 56       | 500           |
| Laboring man at severe work.....   | 145      | 100      | 450           |
| Laboring woman.....                | 92       | 44       | 400           |
| Aged man.....                      | 100      | 68       | 350           |
| Aged woman.....                    | 80       | 50       | 280           |

We are, of course, to understand that these figures represent only general averages. It is assumed that for an ordinary laboring man, doing an ordinary amount of work, the amounts of nutrients above given will suffice, and that with them he will hold his own, and that any considerable excess above these quantities will be superfluous. But, of course, no one expects any given man to adjust his diet exactly to this standard; he may need more, and may, perhaps, get on with less. He may eat more fats and less carbohydrates, or he may consume more protein, if he is willing to pay for it. If, however, he eats much less protein, and keeps up his muscular exertion, he will, in Prof. Voit's opinion, be apt, sooner or later, to suffer.

Protein is the costliest of the food ingredients, and hence the one which, from the pecuniary standpoint, most needs to be economized; and since, furthermore, its work of building up muscles, tendons, and the like, cannot be done by either of the other classes of nutrients; since, in other words, it is very expensive, one of the first questions in constructing an economical ration is "What is the least amount of protein that will suffice?" This question cannot be answered exactly until we know more than we now do about the demands of different organisms under different conditions. The subject needs more thorough and experimental study. But we may find an approximate answer in results of observation and experiments already on record.

To resume briefly, in computing standard rations to supply sufficient food at the minimum cost, we have to learn—

1st. What is the minimum quantity of the most costly ingredient, viz., protein?

2d. What proportion of nutrients is contained in the food-materials we are to use?

But lack of complete data, as well as time for discussion, precludes further reference to the matter.

#### EXAMPLES OF GERMAN RATIONS.

Of late, a great deal of attention has been paid in Germany to this particular subject of the food of the people and the best ways to economize it. I noticed a statement in a scientific journal a few days ago that Bismarck had engaged Prof. König to prepare a series of schedules of rations for ordinary German laboring people, which I suppose actually means that one of the departments of the Prussian government has engaged Prof. König, who is one of the principal authorities in this line, to carry out this enterprise. Numerous attempts have already been made in this same direction. I have before me, for instance, a little brochure of about one hundred pages by Dr. Meinert, entitled "*Wie nährt man sich gut und billig?*" or "How can one feed himself well and economically?" That this is regarded as trustworthy is evinced by the fact that it was honored with a prize, offered by an association and awarded by a committee, consisting of Profs. Voit, Forster, and Beneke, three of the best known German authorities in this specialty. It tells in plain language about foods, their constituents, the proportions of the several nutrients in various foods, the relative cheapness and dearness of different food-materials as shown by the comparison of their composition with their price, and with the rest gives schedules of daily rations for families. There are three of these schedules, the first intended for a family with an annual income of 800 marks, or \$200, of which it is assumed that sixty per cent will be expended for food. The second is for a family with an income of 1,100 marks, or \$275, and the third for one of 1,500 marks, or \$375 per annum. The outlay for the food of each of the last two is to be about fifty-three per cent of the income. As the largest of the three incomes would be counted very small with us I have selected the schedule corresponding to it rather than either of the others for the translation which I have caused to be made and include herewith.

#### DIETARY FOR A FAMILY FOR TWO WEEKS.

The following dietary is calculated for a family consisting of father, mother, and two children of ten and twelve years of age. The annual income for the support of the family is taken at 1,500 marks, or \$375, of which 53 per cent, 800 marks, or \$200 per year, which would make 220 pfennigs, or 55 cents per day, is to be spent for food. It is assumed that the mother and two children will require as much nutritive material in their food as two laboring men, so that the family of four persons will be equal in their demand to three laboring men. Dr. Meinert further assumes that to earn so large a sum as 1,500 marks per year, more than ordinarily hard work will be required, and hence, following Prof. Voit's figures for rations, he provides for a ration with nutrients a little in excess of the standard for a laboring man at moderate work. Prof. Voit's standards for an ordinary laboring man doing moderately hard work, and

for the same man at severe work, are stated below, and with them Dr. Meinert's standard for the family in question :

*Nutrients in Daily Ration.*

| Nutrients.          | Prof. Voit's Standards.            |                                  | Dr. Meinert's Standard for Family with 1,500 Marks Per Year. |
|---------------------|------------------------------------|----------------------------------|--|
|                     | For Laboring Man at Moderate Work. | For Laboring Man at Severe Work. |  |
| Protein .....       | 118 grams (0.26 lb.)               | 145 grams.                       | 120 grams.   |
| Fats .....          | 56 " (0.12 lb.)                    | 100 "                            | 70 "   |
| Carbohydrates ..... | 500 " (1.10 lb.)                   | 450 "                            | 500 "  |

As the family are counted equivalent to three "laboring men," the 220 pfennigs allowed for food per day must pay for three rations, which gives 73.3 pfennigs per ration. The problem, then, is to draw up a bill of fare for each day, which shall furnish a minimum of 120 grams or 0.27 lb. of protein, 70 grams or 0.15 lb. of fats, and 500 grams or 1.10 lbs. of carbohydrates, for 73.3 of pfennigs or 18½ cents per day, in food-materials such as a German laborer may properly use, and at such prices as he must pay for them.

In accordance with German usage provision is to be made for breakfast, dinner at midday, lunch (*Vesperbrot*) in the afternoon, and supper (*Abendessen*). The following is Dr. Meinert's outline of the bill of fare for two weeks :

*Bill of Fare for Fourteen Days.*

| Day.     | Breakfast.                                   | Dinner.  | Lunch.                                 | Supper.                      |
|----------|--|--|--|------------------------------|
| 1st..... | { Coffee, milk, rolls, black bread, butter } | { Fresh haddock with mustard sauce, and potatoes. }    | { Coffee and milk, bread and butter. } | { Meat and vegetable soup. } |
| 2d.....  | { Coffee, milk, rolls, black bread, butter } | { Beef stew with kohlrabi and potatoes. }              | { Coffee and milk, bread and butter. } | Cheese and beer.             |
| 3d.....  | { Coffee, milk, rolls, black bread, butter } | { Sausage with millet, milk and beer. }                | { Coffee and milk, bread and butter. } | Onion soup.                  |
| 4th....  | { Coffee, milk, rolls, black bread, butter } | Mutton and beans.....                                  | { Coffee and milk, bread and butter. } | Potato soup.                 |
| 5th....  | { Coffee, milk, rolls, black bread, butter } | { " <i>Fleischgraupen</i> " with bacon and beer. }     | { Coffee and milk, bread and butter. } | Pea soup.                    |
| 6th....  | { Coffee, milk, rolls, black bread, butter } | { " <i>Klose</i> " (dumplings) with fruit. }           | { Coffee and milk, bread and butter. } | Herring and beer             |
| 7th....  | { Coffee, milk, rolls, black bread, butter } | { Dried codfish with sauerkraut, peas and beer. }      | { Coffee and milk, bread and butter. } | Buttermilk soup.             |
| 8th....  | { Coffee, milk, rolls, black bread, butter } | { Hashed meats with potato soup. }                     | { Coffee and milk, bread and butter. } | { Meat and vegetable soup. } |
| 9th....  | { Coffee, milk, rolls, black bread, butter } | { Sausage ( <i>Blutwurst</i> ) with lentils and beer } | { Coffee and milk, bread and butter. } | { Potatoes and curd. }       |
| 10th...  | { Coffee, milk, rolls, black bread, butter } | Liver with potato salad                                | { Coffee and milk, bread and butter. } | Cheese and beer.             |
| 11th...  | { Coffee, milk, rolls, black bread, butter } | { Beefsteak with cabbage and potatoes. }               | { Coffee and milk, bread and butter. } | { Bread and milk soup. }     |
| 12th...  | { Coffee, milk, rolls, black bread, butter } | { Herring, potatoes, and beer. }                       | { Coffee and milk, bread and butter. } | { Meat and vegetable soup. } |
| 13th...  | { Coffee, milk, rolls, black bread, butter } | { Pork with cabbage, and potatoes. }                   | { Coffee and milk, bread and butter. } | Cheese and beer.             |
| 14th...  | { Coffee, milk, rolls, black bread, butter } | { Liver with spinach, potatoes and beer. }             | { Coffee and milk, bread and butter. } | { Oatmeal in buttermilk. }   |

The details of the daily bills of fare are given by Dr. Meinert in the forms translated beyond. The quantities are given in the metric weights and measures current in Germany. It will be remembered that the kilogram consists of 1,000 grams and equals about 2.2 pounds; that the gram is nearly 15.5 grains, and, roughly speaking, 450 grams make a pound, and 28 grams an ounce. The litre is 1,000 cubic centimeters, a little over a quart; a liter of water weighs 1 kilogram. The mark consists of 100 pfennigs, and is worth about twenty-five cents, so that the pfennig is one-quarter of a cent. Translating these into our own weights and measures would, I think, rather detract from than add to their clearness and value. In their present form they are simple, but would by recalculation become more complex. In the summary at the end, the quantities and prices are given in American weights and money.

In translating I will, for convenience, speak of the first and second breakfast together as breakfast. The midday and evening meals we will call dinner and supper, and will follow Dr. Meinert's example in including the afternoon lunch with breakfast.

In this dietary Dr. Meinert gives first a general schedule for breakfast and lunch, which (or its equivalent) is to serve for each of the fourteen days. The schedule for dinner and supper for each several day is given by itself. It is assumed that the material left over at one time will serve for another, and that thus the evening meals may be filled out from what is left at breakfast or dinner.

### *Breakfast and Lunch.*

| Amount of Food and Price.                 | Amount in Grams. | Price per Kilo or Liter in Pfennigs. | Price of the Amount Indicated in Pfennigs. | Amount of—      |              |                       |
|---|------------------|--------------------------------------|--|-----------------|--------------|-----------------------|
|   |                  |                                      |  | Protein, Grams. | Fats, Grams. | Carbohydrates, Grams. |
| 4 wheat rolls .....                       | 290              | 12                                   | 12   | 15              | 2            | 148                   |
| Rye bread .....                           | 1,500            | 24                                   | 36   | 90              | 9            | 750                   |
| Coffee and coffee substitutes .....       | 60               | 9                                    | 9  | 5               | 1            | 28                    |
| 1½ liters skimmed milk .....              | 1,250            | 8                                    | 10   | 38              | 6            | 50                    |
| Butter .....                              | 100              | 240                                  | 24   | —               | 98           | —                     |
| Salt .....                                | 75               | 20                                   | 1.5  | —               | —            | —                     |
| 2 liters beer .....                       | 2,000            | 12                                   | 24   | 10              | —            | 160                   |
| Totals .....                              | —                | —                                    | 116.5                                      | 158             | 116          | 1,136                 |
| Per head and day .....                    | —                | —                                    | 38.8                                       | 53              | 39           | 379                   |
| There remains for dinner and supper ..... | —                | —                                    | 34.5                                       | 67              | 31           | 121                   |
| Total per head per day .....              | —                | —                                    | 73.3                                       | 120             | 70           | 500                   |

It will be observed that the cost of each material is stated with the amounts of nutrients it contains. By "per head" is understood for one laboring man. It will be remembered that the mother and two children were assumed to require as much as two laboring men.

Here follow details of dinner and supper, and summary for each of the 14 days.

*Bill of Fare for Dinner and Supper for Fourteen Days.*

| Amount of Food.                | Amount<br>in<br>grams. | Price<br>per kilo<br>or liter<br>in pfe-<br>nigs. | Price<br>of the<br>Amount<br>Indi-<br>cated in<br>pfe-<br>nigs. | Amount of—         |                 |                               |  |
|--------------------------------|------------------------|---|---|--------------------|-----------------|-------------------------------|--|
|                                |                        |   |   | Protein.<br>grams. | Fats.<br>Grams. | Carbo-<br>hydrates.<br>Grams. |  |
| FIRST DAY.                     |                        |   |   |                    |                 |                               |  |
| Fresh haddock.....             | 500                    | 80  | 40  | 60                 | 5               | 8                             | } <i>Dinner.</i> —Fresh haddock with mustard sauce and potatoes. |
| Mustard.....                   | 125                    | 80  | 10  | 33                 | 42              | 31                            |  |
| Flour.....                     | 50                     | 40  | 2   | 6                  | —               | 35                            |  |
| Fat (lard, butter).....        | 60                     | 130   | 8   | —                  | 57              | —                             |  |
| Potatoes.....                  | 2,500                  | 7   | 17.5  | 50                 | 3               | 500                           |  |
| "Fleischgemuse," *.....        | 125                    | 200   | 25  | 40                 | 22              | 44                            | } <i>Supper.</i> —Meat and vegetable soup.                       |
| Totals.....                    |                        |   | 102.5   | 189                | 129             | 618                           |  |
| Per head.....                  |                        |   | 34.2  | 63                 | 43              | 206                           |  |
| For breakfast, lunch, etc..... |                        |   | 38.8  | 53                 | 39              | 379                           |  |
| Total per head and day.....    |                        |   | 73.0  | 116                | 82              | 585                           |  |
| SECOND DAY.                    |                        |   |   |                    |                 |                               |  |
| Beef.....                      | 500                    | 120   | 60  | 80                 | 40              | —                             | } <i>Dinner.</i> —Beef stew with kohlrabi and potatoes.          |
| Fat (lard, butter, etc.).....  | 100                    | 130   | 13  | —                  | 95              | —                             |  |
| Kohlrabi.....                  | 1,000                  | 15  | 15  | 27                 | 2               | 86                            |  |
| Potatoes.....                  | 1,500                  | 7   | 10.5  | 30                 | 3               | 300                           |  |
| Skim-milk cheese.....          | 300                    | 50  | 15  | 120                | 21              | —                             |  |
| Totals.....                    |                        |   | 113.5   | 257                | 161             | 386                           | } <i>Supper.</i> —Cheese and beer.                               |
| Per head.....                  |                        |   | 37.8  | 86                 | 54              | 129                           |  |
| For breakfast, lunch, etc..... |                        |   | 38.8  | 53                 | 39              | 379                           |  |
| Total per head and day.....    |                        |   | 76.6  | 139                | 93              | 508                           |  |
| THIRD DAY.                     |                        |   |   |                    |                 |                               |  |
| Millet.....                    | 500                    | 40  | 20  | 56                 | 17              | 290                           | } <i>Dinner.</i> —Sausage with millet, milk, and beer.           |
| Skimmed Milk.....              | 1,500                  | 8   | 12  | 45                 | 7               | 60                            |  |
| Sausage.....                   | 300                    | 180   | 54  | 69                 | 33              | 21                            |  |
| Onions.....                    | 150                    | 10  | 1.5   | 4                  | —               | 12                            |  |
| Fat.....                       | 50                     | 130   | 6.5   | —                  | 47              | —                             |  |
| Flour.....                     | 150                    | 40  | 6.0   | 17                 | 2               | 105                           | } <i>Supper.</i> —Onion soup.                                    |
| Totals.....                    |                        |   | 100.0   | 191                | 106             | 488                           |  |
| Per head.....                  |                        |   | 33.3  | 64                 | 35              | 163                           |  |
| For breakfast, lunch, etc..... |                        |   | 38.8  | 53                 | 39              | 379                           |  |
| Total per head and day.....    |                        |   | 72.1  | 117                | 74              | 542                           |  |
| FOURTH DAY.                    |                        |   |   |                    |                 |                               |  |
| Mutton.....                    | 500                    | 120   | 60  | 75                 | 50              | —                             | } <i>Dinner.</i> —Mutton and beans.                              |
| Beans.....                     | 500                    | 40  | 20  | 130                | 10              | 250                           |  |
| Fat.....                       | 100                    | 130   | 13  | —                  | 95              | —                             |  |
| Potatoes.....                  | 2,000                  | 7   | 14  | 40                 | 2               | 400                           |  |
| Totals.....                    |                        |   | 107   | 245                | 157             | 650                           |  |

\* \* \* Fleischgemuse, soup made from a mixture of preserved South American meat and vegetables especially recommended by Dr. Mehnert.



*Bill of Fare.—Continued.*

| Amount of Food.                | Amount<br>in<br>grams. | Price<br>per kilo<br>or liter<br>in pfen-<br>nigs. | Price<br>of the<br>Amount<br>indi-<br>cated in<br>pfen-<br>nigs. | Amount of—         |                 |                               |   |
|--------------------------------|------------------------|--|--|--------------------|-----------------|-------------------------------|---|
|                                |                        |  |  | Protein.<br>Grams. | Fats.<br>Grams. | Carbo-<br>hydrates.<br>Grams. |   |
| FOURTH DAY.                    |                        |  |  |                    |                 |                               |   |
| Per head.....                  |                        |  | 35.6   | 82                 | 52              | 216                           |   |
| For breakfast, lunch, etc..... |                        |  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    |                        |  | 74.4   | 135                | 91              | 595                           |   |
| FIFTH DAY.                     |                        |  |  |                    |                 |                               |   |
| "Fleischgraupen".....          | 450                    | 150  | 68   | 100                | 10              | 300                           | { Dinner—"Fleisch-<br>graupen" with<br>bacon and beer.<br>Supper.—Pea<br>soup.                      |
| Bacon.....                     | 125                    | 160  | 20   | 3                  | 98              |                               |   |
| Pease.....                     | 300                    | 50   | 15   | 67                 | 6               | 150                           |   |
| Lard.....                      | 40                     | 170  | 7  |                    | 37              |                               |   |
| Spices.....                    |                        |  | 2  |                    |                 |                               |   |
| Totals.....                    |                        |  | 112  | 170                | 151             | 450                           |   |
| Per head.....                  |                        |  | 37.3   | 57                 | 50              | 150                           |   |
| For breakfast, lunch, etc..... |                        |  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    |                        |  | 76.1   | 110                | 89              | 529                           |   |
| SIXTH DAY.                     |                        |  |  |                    |                 |                               |   |
| Wheat flour.....               | 600                    | 45   | 27   | 66                 | 6               | 438                           | { Dinner.—Dump-<br>plings with fruit.<br>Supper.—Herring<br>and beer.                               |
| Potatoes.....                  | 1,500                  | 7  | 10.5   | 30                 | 1.5             | 300                           |   |
| Wheat rolls.....               | 72                     |  | 3  | 4                  |                 | 35                            |   |
| Fat.....                       | 100                    | 130  | 13   |                    | 95              |                               |   |
| Fruit.....                     | 250                    | 80   | 20   | 8                  | 2.5             | 113                           |   |
| Sugar.....                     | 30                     | 100  | 3  |                    |                 | 27                            |   |
| Herrings.....                  | 260                    | 7  | 21   | 52                 | 32              | 5                             |   |
| Totals.....                    |                        |  | 97.5   | 160                | 137.0           | 918                           |   |
| Per head.....                  |                        |  | 32.5   | 53                 | 46              | 306                           |   |
| For breakfast, lunch, etc..... |                        |  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    |                        |  | 71.3   | 106                | 85              | 685                           |   |
| SEVENTH DAY.                   |                        |  |  |                    |                 |                               |   |
| Dried codfish.....             | 250                    | 140  | 35   | 198                | 3               |                               | { Dinner.—Dried<br>codfish, with<br>sauerkraut, peas,<br>and beer.<br>Supper.—Butter-<br>milk soup. |
| Sauerkraut.....                | 1,000                  | 18   | 18   | 10                 | 2               | 46                            |   |
| Pease.....                     | 300                    | 50   | 15   | 67                 | 3               | 150                           |   |
| Fat.....                       | 100                    | 130  | 13   |                    | 95              |                               |   |
| Buttermilk, 2 liters.....      | 2,000                  | 6  | 12   | 51                 | 15              | 15                            |   |
| Totals.....                    |                        |  | 93   | 326                | 118             | 211                           |   |
| Per head.....                  |                        |  | 31   | 169                | 39              | 70                            |   |
| For breakfast, lunch, etc..... |                        |  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    |                        |  | 69.8   | 162                | 78              | 449                           |   |

*Bill of Fare.—Continued.*

| Amount of Food.                | Amount<br>in<br>Grams. | Price<br>per kilo<br>in pfen-<br>nigs. | Price<br>of the<br>Amount<br>indicated in<br>pfennigs. | Amount of—         |                 |                               |   |
|--------------------------------|------------------------|--|--|--------------------|-----------------|-------------------------------|---|
|                                |                        |  |  | Protein.<br>Grams. | Fats.<br>Grams. | Carbo-<br>hydrates.<br>Grams. |   |
| Beef.....                      | 200                    | 120                                    | 24   | 32                 | 16              | .....                         | EIGHTH DAY.<br><br>Dinner.—Hashed<br>meats with po-<br>tato soup.<br><br>Supper.—Meat and<br>vegetable soup.            |
| Pork.....                      | 100                    | 130                                    | 13   | 14                 | 10              | .....                         |   |
| Mutton.....                    | 125                    | 120                                    | 15   | 20                 | 8               | .....                         |   |
| Fat.....                       | 60                     | 130                                    | 8  | .....              | 56              | .....                         |   |
| Spices and vegetables.....     | 40                     | 3                                      | .....  | .....              | .....           | .....                         |   |
| Potatoes.....                  | 3,000                  | 7                                      | 21   | 60                 | 3               | 600                           |   |
| "Fleischgemuse".....           | 125                    | 200                                    | 25   | 40                 | 22              | 46                            |   |
| Totals.....                    | .....                  | .....                                  | 106  | 166                | 115             | 646                           |   |
| Per head.....                  | .....                  | .....                                  | 35.3   | 55                 | 38              | 215                           |   |
| For breakfast, lunch, etc..... | .....                  | .....                                  | 38.5   | 53                 | 39              | 379                           |   |
| Total per head and day.....    | .....                  | .....                                  | 74.1   | 108                | 77              | 594                           |   |
| Sausage.....                   | 300                    | 160                                    | 48   | 35                 | 34              | 78                            | NINTH DAY.<br><br>Dinner.—Sausage<br>and lentils.<br><br>Supper.—Potatoes<br>and curd.                                  |
| Lentils.....                   | 500                    | 50                                     | 25   | 125                | 10              | 250                           |   |
| Vinegar.....                   | .....                  | .....                                  | 3  | .....              | .....           | .....                         |   |
| Curd.....                      | 250                    | 40                                     | 10   | 43                 | 8               | 7                             |   |
| Potatoes.....                  | 2,500                  | 7                                      | 17.5   | 50                 | 3               | 500                           |   |
| Totals.....                    | .....                  | .....                                  | 103.5  | 253                | 55              | 835                           |   |
| Per head.....                  | .....                  | .....                                  | 34.5   | 84                 | 18              | 278                           |   |
| For breakfast, lunch, etc..... | .....                  | .....                                  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    | .....                  | .....                                  | 73.3   | 137                | 57              | 657                           |   |
| Liver and lungs.....           | 500                    | 80                                     | 40   | 97                 | 27              | 10                            | TENTH DAY.<br><br>Dinner.—Liver<br>with potato<br>salad.<br><br>Supper.—Cheese<br>and beer.                             |
| Lard.....                      | 40                     | 1.70                                   | 6.8  | .....              | 36              | .....                         |   |
| Wheat rolls.....               | 156                    | .....                                  | 6  | 6                  | 1.5             | 78                            |   |
| Flour.....                     | 40                     | 40                                     | 1.6  | 4                  | 0.5             | 28                            |   |
| Onions.....                    | 50                     | 10                                     | .5   | 1                  | .....           | 4                             |   |
| Pepper and vegetables.....     | 60                     | .....                                  | 1.6  | .....              | .....           | .....                         |   |
| Potatoes.....                  | 2,000                  | 7                                      | 17.5   | 50                 | 2.5             | 500                           |   |
| Vinegar and oil.....           | .....                  | .....                                  | 5  | .....              | .....           | .....                         |   |
| Cheese.....                    | 300                    | 50                                     | 15   | 120                | 21              | .....                         |   |
| Totals.....                    | .....                  | .....                                  | 94   | 278                | 88.5            | 620                           |   |
| Per head.....                  | .....                  | .....                                  | 31.3   | 93                 | 29              | 207                           |   |
| For breakfast, lunch, etc..... | .....                  | .....                                  | 38.8   | 53                 | 39              | 379                           |   |
| Total per head and day.....    | .....                  | .....                                  | 70.1   | 146                | 68              | 586                           |   |
| Beefsteak.....                 | 400                    | 160                                    | 64   | 88                 | 20              | .....                         | ELEVENTH DAY.<br><br>Dinner.—Beef-<br>steak with cab-<br>bage and pota-<br>toes.<br><br>Supper.—Bread<br>and milk soup. |
| Lard.....                      | 60                     | 170                                    | 10   | .....              | 57              | .....                         |   |
| Red cabbage.....               | 1,000                  | 15                                     | 15   | 18                 | 2               | 70                            |   |
| Potatoes.....                  | 1,500                  | 7                                      | 10.5   | 30                 | 1               | 300                           |   |
| Bread.....                     | 300                    | 24                                     | 7  | 18                 | 3               | 150                           |   |
| Skimmed milk.....              | 1,500                  | 8                                      | 12   | 45                 | 7               | 60                            |   |
| Totals.....                    | .....                  | .....                                  | 118.5  | 199                | 90              | 580                           |   |

*Bill of Fare.—Continued.*

| Amount of Food.                    | Amount<br>in<br>Grams. | Price<br>per kilo<br>or liter<br>in pfennigs. | Price<br>of the<br>Amount<br>indicated in<br>pfennigs. | Amount of—         |                 |                               |
|------------------------------------|------------------------|---|--|--------------------|-----------------|-------------------------------|
|                                    |                        |   |  | Protein.<br>Grams. | Fats.<br>Grams. | Carbo-<br>hydrates.<br>Grams. |
| <b>ELEVENTH DAY.</b>               |                        |   |  |                    |                 |                               |
| Per head.....                      |                        |   | 39.5   | 63                 | 30              | 193                           |
| For breakfast, lunch, etc.....     |                        |   | 38.8   | 53                 | 39              | 379                           |
| <b>Total per head and day.....</b> |                        |   | <b>78.3</b>  | <b>116</b>         | <b>69</b>       | <b>572</b>                    |
| <b>TWELFTH DAY.</b>                |                        |   |  |                    |                 |                               |
| Three herrings.....                | 260                    | 47  | 21   | 52                 | 32              | 5                             |
| Potatoes.....                      | 3,000                  | 7   | 21   | 60                 | 3               | 600                           |
| Skimmed milk.....                  | 1,000                  | 8   | 8  | 30                 | 4               | 40                            |
| Flour.....                         | 50                     | 40  | 2  | 5                  | 0.5             | 35                            |
| Onions.....                        | 50                     | 10  | 0.5  | 1                  | 0.5             | 3                             |
| Lard.....                          | 50                     | 170   | 8.5  |                    | 47              |                               |
| Spices.....                        |                        |   | 1.5  |                    |                 |                               |
| "Fleischgemuse".....               | 125                    | 200   | 25   | 40                 | 22              | 46                            |
| <b>Totals.....</b>                 |                        |   | <b>87.5</b>  | <b>188</b>         | <b>100.0</b>    | <b>729</b>                    |
| Per head.....                      |                        |   | 29.2   | 63                 | 36              | 243                           |
| For breakfast, lunch, etc.....     |                        |   | 38.8   | 53                 | 39              | 379                           |
| <b>Total per head and day.....</b> |                        |   | <b>68.0</b>  | <b>116</b>         | <b>75</b>       | <b>622</b>                    |
| <b>THIRTEENTH DAY.</b>             |                        |   |  |                    |                 |                               |
| Pork.....                          | 500                    | 130   | 65   | 67                 | 60              |                               |
| Cabbage.....                       | 1,000                  | 10  | 10   | 20                 | 1               | 66                            |
| Potatoes.....                      | 2,000                  | 7   | 14   | 40                 | 2               | 400                           |
| Lard.....                          | 50                     | 170   | 8.5  |                    | 47              |                               |
| Cheese.....                        | 300                    | 50  | 15   | 120                | 21              |                               |
| <b>Totals.....</b>                 |                        |   | <b>112.5</b>   | <b>247</b>         | <b>131</b>      | <b>466</b>                    |
| Per head.....                      |                        |   | 37.5   | 62                 | 44              | 155                           |
| For breakfast, lunch, etc.....     |                        |   | 38.8   | 53                 | 39              | 379                           |
| <b>Total per head and day.....</b> |                        |   | <b>76.3</b>  | <b>135</b>         | <b>83</b>       | <b>534</b>                    |
| <b>FOURTEENTH DAY.</b>             |                        |   |  |                    |                 |                               |
| Liver.....                         | 500                    | 100   | 50   | 175                | 15              |                               |
| Spinach.....                       | 1,000                  | 15  | 15   | 20                 | 2               | 60                            |
| Potatoes.....                      | 2,000                  | 7   | 14   | 40                 | 2               | 400                           |
| Fat.....                           | 80                     | 130   | 10   |                    | 75              |                               |
| Oatmeal.....                       | 150                    | 60  | 9  | 23                 | 9               | 96                            |
| Buttermilk.....                    | 1,000                  | 6   | 6  | 34                 | 10              | 10                            |
| <b>Totals.....</b>                 |                        |   | <b>104</b>   | <b>292</b>         | <b>113</b>      | <b>568</b>                    |
| Per head.....                      |                        |   | 35   | 97                 | 38              | 189                           |
| For breakfast, lunch, etc.....     |                        |   | 38.8   | 53                 | 39              | 379                           |
| <b>Total per head and day.....</b> |                        |   | <b>73.8</b>  | <b>150</b>         | <b>77</b>       | <b>568</b>                    |

\* At 7 pfennigs each.

## RATIONS OF COMMON FOOD-MATERIALS ESTIMATED TO CONTAIN THE AMOUNTS OF NUTRITIVE INGREDIENTS IN THE STANDARD RATION, WITH COST OF EACH.

The following rations have been calculated by my assistant, Mr. Rockwood, mostly from results of analyses made in our laboratory in behalf of the Smithsonian Institution (U. S. National Museum) as a basis for explanations of its food collection. No other considerable series of analyses of American food-materials has, so far as I am aware, been executed; hence, though the data are meagre, they are the best available. They are probably not far out of the way. Mr. Rockwood has endeavored to construct one series of rations at a very low cost, eleven or twelve cents a day, or thereabouts, and another series at higher rates, up to forty-five cents a day. Of course, it is not proposed that any person or family should attempt to follow these exactly. For that matter, the chemist will evidently have to consult the cook if he proposes to construct dietaries to accord with ordinary tastes. The rations will, nevertheless, help to show how foods may be economized, and what proportions would suffice for the nourishment of ordinary people, and what are the constituents and costs of the different materials. They are estimated to supply very nearly the amounts of nutrients in Voit's standard ration for a laboring man at moderate work:

## LABOR AND INDUSTRIAL STATISTICS.

DAILY RATIONS COMPUTED TO FURNISH NUTRIENTS EQUIVALENT TO THOSE OF  
STANDARD FOR LABORING MAN AT MODERATE WORK.

Standard Ration:—Protein (118 grams) 0.26 lb.; fats (56 grams) 0.12 lb.; carbohydrates (500 grams)  
1.10 lbs.

## A.—Daily Rations Costing 12 Cents or Less.

| Food-Materials.               |                   |                       | Food-Materials.               |                     |                       |
|-------------------------------|-------------------|-----------------------|-------------------------------|---------------------|-----------------------|
| Kinds.                        | Amounts.          | Costs.                | Kinds.                        | Amounts.            | Costs.                |
| <b>No. 1.</b>                 |                   |                       | <b>No. 6.</b>                 |                     |                       |
| Beef, neck.....               | $\frac{3}{8}$ lb. | 4 cts.                | Smoked herring.....           | $\frac{1}{2}$ lb.   | 3 cts.                |
| Beans.....                    | $\frac{1}{4}$ "   | $\frac{3}{4}$ "       | Potatoes.....                 | 1 "                 | 1 "                   |
| Potatoes.....                 | 2 "               | 2 "                   | Beans.....                    | $\frac{1}{4}$ "     | $1\frac{1}{2}$ "      |
| Oatmeal.....                  | $\frac{1}{4}$ "   | $1\frac{1}{2}$ "      | Wheat flour.....              | 1 "                 | 4 "                   |
| Butter.....                   | $\frac{3}{8}$ oz. | $1\frac{1}{2}$ "      | Butter.....                   | 1-16 "              | 2 "                   |
| Rye flour.....                | $\frac{1}{2}$ lb. | $1\frac{1}{4}$ "      |                               |                     |                       |
| Total.....                    |                   | 10 $\frac{1}{2}$ cts. | Total.....                    |                     | 11 $\frac{1}{2}$ cts. |
| <b>No. 2.</b>                 |                   |                       | <b>No. 7, for 3 Men.</b>      |                     |                       |
| Beef, shin.....               | $\frac{1}{2}$ lb. | 3 cts.                | Beef, neck.....               | $\frac{1}{2}$ lb.   | 4 cts.                |
| Oatmeal.....                  | $\frac{1}{2}$ "   | $2\frac{1}{2}$ "      | Beef, shin.....               | $\frac{1}{2}$ "     | 3 "                   |
| Corn meal.....                | $\frac{1}{2}$ "   | 1 "                   | Alewives.....                 | 1 "                 | 3 "                   |
| Milk, $\frac{1}{2}$ pint..... | $\frac{1}{2}$ "   | 2 "                   | Beans.....                    | $\frac{1}{4}$ "     | $\frac{3}{4}$ "       |
| Potatoes.....                 | 1 "               | 1 "                   | Milk, $\frac{1}{2}$ pint..... | $\frac{1}{2}$ "     | 2 "                   |
| Butter.....                   | 1 oz.             | 2 "                   | Rye flour.....                | $\frac{1}{2}$ "     | $1\frac{1}{4}$ "      |
| Total.....                    |                   | 11 $\frac{1}{2}$ cts. | Wheat flour.....              | $\frac{1}{2}$ "     | 2 "                   |
| <b>No. 3.</b>                 |                   |                       | Oatmeal.....                  | $\frac{1}{4}$ "     | $3\frac{3}{4}$ "      |
| Herring.....                  | $\frac{1}{2}$ lb. | 3 cts.                | Corn meal.....                | 1 "                 | 3 "                   |
| Oatmeal.....                  | $\frac{1}{4}$ "   | $1\frac{1}{4}$ "      | Potatoes.....                 | 5 "                 | 5 "                   |
| Potatoes.....                 | 1 "               | 1 "                   | Butter.....                   | $2\frac{1}{2}$ oz.  | $5\frac{1}{2}$ "      |
| Wheat flour.....              | 1 "               | 4 "                   |                               |                     |                       |
| Butter.....                   | 1-16 "            | 2 "                   | Total for 3 men.....          |                     | 33 $\frac{1}{4}$ cts. |
| Total.....                    |                   | 11 $\frac{1}{4}$ cts. | " " 1 man.....                |                     | 11 "                  |
| <b>No. 4.</b>                 |                   |                       | <b>No. 8, for 4 Men.</b>      |                     |                       |
| Beef, shin.....               | $\frac{1}{2}$ lb. | 3 cts.                | Beef, neck.....               | $\frac{1}{2}$ lb.   | 4 cts.                |
| Potatoes.....                 | 3 "               | 3 "                   | Beef, shin.....               | $\frac{1}{2}$ "     | 3 "                   |
| Wheat flour.....              | $\frac{1}{2}$ "   | 2 "                   | Rye flour.....                | $\frac{1}{2}$ "     | $1\frac{1}{4}$ "      |
| Beans.....                    | $\frac{1}{2}$ "   | $\frac{3}{4}$ "       | Sugar.....                    | $1\frac{1}{2}$ oz.  | 1 "                   |
| Butter.....                   | 1-16 "            | 2 "                   | Oatmeal.....                  | $\frac{1}{2}$ lb.   | $2\frac{1}{2}$ "      |
| Sugar.....                    | 1 oz.             | 1 "                   | Herring.....                  | 1 "                 | 6 "                   |
| Total.....                    |                   | 11 $\frac{1}{4}$ cts. | Beans.....                    | 10 oz.              | $2\frac{1}{2}$ "      |
| <b>No. 5.</b>                 |                   |                       | Wheat flour.....              | $2\frac{1}{2}$ lbs. | 10 "                  |
| Alewives.....                 | 1 lb.             | 3 cts.                | Potatoes.....                 | 7 "                 | 7 "                   |
| Potatoes.....                 | 2 "               | $1\frac{1}{2}$ "      | Butter.....                   | $3\frac{1}{4}$ oz.  | $7\frac{1}{4}$ "      |
| Corn meal.....                | $\frac{1}{2}$ "   | 2 "                   |                               |                     |                       |
| Wheat flour.....              | $\frac{1}{2}$ "   | 2 "                   | Total for 4 men.....          |                     | 44 $\frac{1}{2}$ cts. |
| Butter.....                   | 1-16 "            | 2 "                   | " " 1 man.....                |                     | 11 $\frac{1}{2}$ "    |
| Total.....                    |                   | 10 $\frac{1}{2}$ cts. |                               |                     |                       |

*B.—Daily Rations Costing from 12 to 15 Cents.*

| Food-materials.       |                     |                       | Food-materials.           |                      |                       |
|-----------------------|---------------------|-----------------------|---------------------------|----------------------|-----------------------|
| Kinds.                | Amounts.            | Costs.                | Kinds.                    | Amounts.             | Costs.                |
| <i>No. 9.</i>         |                     |                       | <i>No. 14.</i>            |                      |                       |
| Liver.....            | $\frac{1}{2}$ lb.   | 5 cts.                | Fresh mackerel.....       | $\frac{3}{4}$ lb.    | 4 $\frac{1}{2}$ cts.  |
| Potatoes.....         | 1 " "               | 1 " "                 | Potatoes.....             | 1 " "                | 1 " "                 |
| Butter.....           | 1-16 " "            | 2 " "                 | Cracked wheat.....        | $\frac{1}{2}$ " "    | 3 " "                 |
| Corn meal.....        | 1 " "               | 3 " "                 | Corn meal.....            | $\frac{1}{2}$ " "    | 1 $\frac{1}{2}$ " "   |
| Bread.....            | $\frac{1}{2}$ " "   | 3 " "                 | Beans.....                | $\frac{1}{4}$ " "    | $\frac{3}{4}$ " "     |
|                       |                     |                       | Butter.....               | 1 oz.                | 2 " "                 |
| Total.....            |                     | 14 cts.               | Total.....                |                      | 12 $\frac{3}{4}$ cts. |
| <i>No. 10.</i>        |                     |                       | <i>No. 15.</i>            |                      |                       |
| Beef, shin.....       | $\frac{1}{2}$ b.    | 3 cts.                | Beef, neck.....           | $\frac{1}{2}$ lb.    | 4 cts.                |
| Bread.....            | $\frac{1}{2}$ " "   | 2 $\frac{1}{2}$ " "   | Potatoes.....             | 1 " "                | 1 " "                 |
| Potatoes.....         | 1 " "               | 1 " "                 | Corn meal.....            | $\frac{1}{2}$ " "    | 1 $\frac{1}{2}$ " "   |
| Oatmeal.....          | $\frac{1}{4}$ " "   | 1 $\frac{1}{4}$ " "   | Rye bread.....            | 1 " "                | 4 " "                 |
| Corn meal.....        | $\frac{1}{2}$ " "   | 1 $\frac{1}{2}$ " "   | Butter.....               | 1 oz.                | 2 " "                 |
| Butter.....           | 1-16 " "            | 2 " "                 |                           |                      |                       |
| Sugar.....            | 1-32 " "            | $\frac{1}{4}$ " "     | Total.....                |                      | 12 $\frac{1}{2}$ cts. |
| Milk.....             | $\frac{1}{4}$ " "   | 2 " "                 |                           |                      |                       |
| Total.....            |                     | 13 $\frac{1}{2}$ cts. | <i>No. 16, for 3 men.</i> |                      |                       |
| <i>No. 11.</i>        |                     |                       | Liver.....                | $\frac{1}{2}$ lb.    | 5 cts.                |
| Salt cod.....         | $\frac{1}{2}$ lb.   | 3 $\frac{1}{2}$ cts.  | Beef, shin (soup).....    | $\frac{1}{2}$ " "    | 3 " "                 |
| Oatmeal.....          | $\frac{1}{2}$ " "   | 2 $\frac{1}{2}$ " "   | Salt codfish.....         | $\frac{1}{2}$ " "    | 3 $\frac{1}{2}$ " "   |
| Corn meal.....        | $\frac{1}{2}$ " "   | 1 " "                 | Salt pork.....            | 2 oz.                | 2 " "                 |
| Milk.....             | $\frac{1}{2}$ " "   | 2 " "                 | Crackers (pilot).....     | 1 lb.                | 5 $\frac{1}{2}$ " "   |
| Butter.....           | 1 oz.               | 2 " "                 | Pease.....                | $\frac{1}{2}$ " "    | 3 " "                 |
| Potatoes.....         | 1 lbs.              | 2 " "                 | Sugar.....                | $\frac{1}{2}$ oz.    | $\frac{1}{4}$ " "     |
| Total.....            |                     | 13 cts.               | Milk.....                 | $\frac{1}{4}$ lb.    | 2 " "                 |
| <i>No. 12.</i>        |                     |                       | Oatmeal.....              | $\frac{1}{4}$ " "    | 1 $\frac{1}{4}$ " "   |
| Pork.....             | $\frac{1}{2}$ lb.   | 2 cts.                | Potatoes.....             | 2 " "                | 2 " "                 |
| Beans.....            | $\frac{1}{4}$ " "   | 1 $\frac{1}{4}$ " "   | Bread.....                | 1 " "                | 6 " "                 |
| Salt cod.....         | $\frac{1}{4}$ " "   | 2 " "                 | Butter.....               | 2 oz.                | 4 " "                 |
| Potatoes.....         | 1 $\frac{1}{2}$ " " | 1 $\frac{1}{2}$ " "   | Corn meal.....            | 1 $\frac{1}{2}$ lbs. | 4 $\frac{1}{2}$ " "   |
| Bread.....            | 1 $\frac{1}{4}$ " " | 6 " "                 | Total for 3 men.....      |                      | 42 cts.               |
| Total.....            |                     | 12 $\frac{1}{4}$ cts. | " " 1 man.....            |                      | 14 " "                |
| <i>No. 13.</i>        |                     |                       | <i>No. 17, for 4 men.</i> |                      |                       |
| Salt codfish.....     | $\frac{1}{2}$ lb.   | 3 $\frac{1}{2}$ cts.  | Beef, shin.....           | $\frac{1}{2}$ lb.    | 3 cts.                |
| Salt pork.....        | $\frac{1}{2}$ " "   | 2 " "                 | Fresh mackerel.....       | $\frac{1}{2}$ " "    | 4 $\frac{1}{2}$ " "   |
| Crackers (pilot)..... | 1 " "               | 5 $\frac{1}{2}$ " "   | Salt cod.....             | $\frac{1}{2}$ " "    | 5 $\frac{1}{2}$ " "   |
| Pease.....            | $\frac{1}{2}$ " "   | 3 " "                 | Pork.....                 | 2 oz.                | 2 " "                 |
| Total.....            |                     | 14 cts.               | Beans.....                | $\frac{1}{2}$ lb.    | 1 $\frac{1}{2}$ " "   |
|                       |                     |                       | Wheat bread.....          | 1 $\frac{1}{2}$ " "  | 8 $\frac{1}{2}$ " "   |
|                       |                     |                       | Cracked wheat.....        | $\frac{1}{2}$ " "    | 3 " "                 |
|                       |                     |                       | Corn meal.....            | 1 $\frac{1}{2}$ " "  | 4 $\frac{1}{2}$ " "   |
|                       |                     |                       | Oatmeal.....              | $\frac{1}{2}$ " "    | 4 " "                 |
|                       |                     |                       | Butter.....               | 3 oz.                | 6 " "                 |
|                       |                     |                       | Milk.....                 | $\frac{1}{4}$ lb.    | 4 " "                 |
|                       |                     |                       | Potatoes.....             | 5 $\frac{1}{2}$ " "  | 5 $\frac{1}{2}$ " "   |
|                       |                     |                       | Sugar.....                | $\frac{1}{2}$ oz.    | $\frac{1}{4}$ " "     |
|                       |                     |                       | Total for 4 men.....      |                      | 52 $\frac{1}{4}$ cts. |
|                       |                     |                       | " " 1 man.....            |                      | 13 " "                |

## C.—Daily Rations Costing from 15 to 20 Cents.

| Food-materials.          |                     |                       | Food-materials.           |                      |                       |
|--------------------------|---------------------|-----------------------|---------------------------|----------------------|-----------------------|
| Kinds.                   | Amounts.            | Costs.                | Kinds                     | Amounts.             | Costs.                |
| <i>No. 18.</i>           |                     |                       | <i>No. 23, for 3 Men.</i> |                      |                       |
| Beef, neck               | $\frac{1}{2}$ lb.   | 2 cts.                | Round steak               | $\frac{1}{2}$ lb.    | 9 cts.                |
| Salt cod                 | $\frac{1}{2}$ "     | 1 $\frac{1}{2}$ "     | Beef, neck                | $\frac{1}{2}$ "      | 2 "                   |
| Potatoes                 | 1 "                 | 1 "                   | Fresh haddock             | $\frac{1}{2}$ "      | 3 $\frac{1}{2}$ "     |
| Bread                    | $\frac{1}{2}$ "     | 3 "                   | Salt cod                  | $\frac{1}{2}$ "      | 1 $\frac{1}{2}$ "     |
| Cabbage                  | 2 oz.               | $\frac{1}{2}$ "       | Fat pork                  | $\frac{1}{2}$ oz.    | $\frac{1}{2}$ "       |
| Turnips                  | 2 "                 | $\frac{1}{2}$ "       | Beans                     | 3 "                  | 2 "                   |
| Carrots                  | 2 "                 | $\frac{1}{2}$ "       | Milk                      | 2 $\frac{1}{2}$ lbs. | 9 "                   |
| Oatmeal                  | 2 "                 | $\frac{1}{2}$ "       | Cheese                    | 1 oz.                | 1 "                   |
| Milk, 1 pint             | 1 lb.               | 3 $\frac{1}{2}$ "     | Butter                    | 3 "                  | 6 "                   |
| Rice                     | 2 oz.               | 1 $\frac{1}{2}$ "     | Wheat bread               | 1 lb.                | 5 "                   |
| Sugar                    | 2 "                 | 1 $\frac{1}{2}$ "     | Rye bread                 | 1 "                  | 4 "                   |
| Corn meal                | $\frac{1}{2}$ lb.   | $\frac{3}{4}$ "       | Soda crackers             | 1 oz.                | $\frac{1}{2}$ "       |
| Soda crackers            | 1 oz.               | $\frac{3}{4}$ "       | Oatmeal                   | 2 "                  | $\frac{1}{2}$ "       |
| Butter                   | 1 "                 | 2 "                   | Corn meal                 | 7-12 lb.             | 1 $\frac{1}{2}$ "     |
| Total                    |                     | 18 cts.               | Rice                      | 2 oz.                | 1 $\frac{1}{2}$ "     |
|                          |                     |                       | Carrots                   | 2 "                  | $\frac{1}{2}$ "       |
| <i>No. 19.</i>           |                     |                       | Turnips                   | 10 "                 | $\frac{1}{2}$ "       |
| Round steak              | $\frac{1}{2}$ lb.   | 8 cts.                | Potatoes                  | 4 lbs.               | 4 "                   |
| Milk                     | $\frac{1}{2}$ "     | 2 "                   | Cabbage                   | 2 oz.                | $\frac{1}{2}$ "       |
| Butter                   | 1 oz.               | 2 "                   | Sugar                     | 5 $\frac{1}{2}$ "    | 3 $\frac{1}{2}$ "     |
| Cheese                   | 1 "                 | 1 "                   | Total for 3 men           |                      | 46 $\frac{1}{2}$ cts. |
| Bread                    | $\frac{1}{2}$ lb.   | 2 $\frac{1}{2}$ "     | " " 1 man                 |                      | 15 "                  |
| Potatoes                 | 1 $\frac{1}{2}$ "   | 1 $\frac{1}{2}$ "     |                           |                      |                       |
| Sugar                    | 1 $\frac{1}{2}$ oz. | 1 "                   | <i>No. 24, for 3 Men.</i> |                      |                       |
| Turnips                  | $\frac{1}{2}$ lb.   | 1 "                   | Round steak               | $\frac{1}{2}$ lb.    | 9 cts.                |
| Corn meal                | $\frac{1}{2}$ "     | 1 "                   | Beef, shin (soup)         | $\frac{1}{2}$ "      | 1 $\frac{1}{2}$ "     |
| Total                    |                     | 19 $\frac{1}{2}$ cts. | Fat pork                  | 1 oz.                | 1 "                   |
|                          |                     |                       | Fresh cod                 | $\frac{1}{2}$ lb.    | 4 "                   |
| <i>No. 20.</i>           |                     |                       | Cheese                    | 1 oz.                | 1 "                   |
| Beef, shin               | $\frac{1}{2}$ lb.   | 1 $\frac{1}{2}$ cts.  | Milk                      | 1 lb.                | 3 $\frac{1}{2}$ "     |
| Fresh cod                | $\frac{1}{2}$ "     | 4 "                   | Beans                     | $\frac{1}{2}$ "      | 5 "                   |
| Oatmeal                  | $\frac{1}{2}$ "     | $\frac{1}{2}$ "       | Pease                     | $\frac{1}{2}$ "      | 2 $\frac{1}{2}$ "     |
| Bread                    | $\frac{1}{2}$ "     | 3 "                   | Wheat bread               | 1 $\frac{1}{2}$ "    | 7 $\frac{1}{2}$ "     |
| Butter                   | 1 oz.               | 2 "                   | Rye bread                 | $\frac{1}{2}$ "      | 2 "                   |
| Potatoes                 | 1 lb.               | 1 "                   | Boston crackers           | 2 oz.                | 1 $\frac{1}{2}$ "     |
| Boston crackers          | 2 oz.               | 1 $\frac{1}{2}$ "     | Oatmeal                   | 2 "                  | $\frac{1}{2}$ "       |
| Milk, $\frac{1}{2}$ pint | $\frac{1}{2}$ lb.   | 1 $\frac{1}{2}$ "     | Corn meal                 | 5-6 lb.              | 2 $\frac{1}{2}$ "     |
| Corn meal                | $\frac{1}{2}$ "     | 1 $\frac{1}{2}$ "     | Potatoes                  | 2 $\frac{1}{2}$ "    | 2 $\frac{1}{2}$ "     |
| Total                    |                     | 16 $\frac{1}{4}$ cts. | Turnips                   | $\frac{1}{2}$ "      | $\frac{1}{2}$ "       |
|                          |                     |                       | Butter                    | 3 oz.                | 6 "                   |
| <i>No. 21.</i>           |                     |                       | Sugar                     | 3 $\frac{1}{2}$ "    | 2 $\frac{1}{2}$ "     |
| Beef, neck               | $\frac{1}{2}$ lb.   | 4 $\frac{1}{2}$ cts.  | Total for 3 men           |                      | 53 $\frac{1}{2}$ cts. |
| Milk                     | $\frac{1}{2}$ "     | 2 "                   | " " 1 man                 |                      | 18 "                  |
| Cheese                   | 1 oz.               | 1 "                   |                           |                      |                       |
| Bread                    | 1 lb.               | 5 "                   | <i>No. 25, for 4 Men.</i> |                      |                       |
| Potatoes                 | 2 "                 | 2 "                   | Round steak               | $\frac{1}{2}$ lb.    | 9 cts.                |
| Sugar                    | 1 $\frac{1}{2}$ oz. | 1 "                   | Beef, shin (soup)         | $\frac{1}{2}$ "      | 1 $\frac{1}{2}$ "     |
| Total                    |                     | 15 $\frac{1}{2}$ cts. | Beef, neck                | 1 "                  | 8 "                   |
|                          |                     |                       | Fresh cod                 | $\frac{1}{2}$ "      | 1 $\frac{1}{2}$ "     |
| <i>No. 22.</i>           |                     |                       | Salt cod                  | $\frac{1}{2}$ "      | $\frac{1}{2}$ "       |
| Pork                     | $\frac{1}{2}$ oz.   | $\frac{1}{2}$ cts.    | Pork                      | $\frac{1}{2}$ oz.    | $\frac{1}{2}$ "       |
| Beans                    | 3 "                 | 2 "                   | Beans                     | $\frac{1}{2}$ lb.    | 5 "                   |
| Fresh cod                | $\frac{1}{2}$ lb.   | 3 $\frac{1}{2}$ "     | Wheat bread               | 1 $\frac{1}{2}$ "    | 8 "                   |
| Potatoes                 | 1 $\frac{1}{2}$ "   | 1 $\frac{1}{2}$ "     | Rye bread                 | 1 "                  | 4 "                   |
| Rye bread                | 1 "                 | 4 "                   | Boston crackers           | 2 oz.                | 1 $\frac{1}{2}$ "     |
| Butter                   | 1 oz.               | 2 "                   | Soda crackers             | 1 "                  | $\frac{1}{2}$ "       |
| Sugar                    | 2 "                 | 1 $\frac{1}{2}$ "     | Oatmeal                   | 1 lb.                | 5 "                   |
| Milk                     | 1 lb.               | 3 $\frac{1}{2}$ "     | Corn meal                 | $\frac{1}{2}$ "      | 2 $\frac{1}{2}$ "     |
| Total                    |                     | 18 $\frac{1}{2}$ cts. | Rice                      | 2 oz.                | 1 $\frac{1}{2}$ "     |
|                          |                     |                       | Potatoes                  | 5 $\frac{1}{2}$ lbs. | 5 $\frac{1}{2}$ "     |
|                          |                     |                       | Cabbage                   | 2 oz.                | $\frac{1}{2}$ "       |
|                          |                     |                       | Turnips                   | 2 "                  | $\frac{1}{2}$ "       |
|                          |                     |                       | Carrots                   | 2 "                  | $\frac{1}{2}$ "       |
|                          |                     |                       | Butter                    | 3 "                  | 6 "                   |
|                          |                     |                       | Milk                      | 2 $\frac{1}{2}$ lbs. | 7 $\frac{1}{2}$ "     |
|                          |                     |                       | Sugar                     | 3 $\frac{1}{2}$ oz.  | 2 $\frac{1}{2}$ "     |
|                          |                     |                       | Total for 4 men           |                      | 71 $\frac{1}{2}$ cts. |
|                          |                     |                       | " " 1 man                 |                      | 18 "                  |

## D.—Daily Rations Costing from 20 to 45 Cents.

| Food-Materials.      |                   |                       | Food-Materials.      |                     |                       |
|----------------------|-------------------|-----------------------|----------------------|---------------------|-----------------------|
| Kinds.               | Amounts.          | Costs.                | Kinds.               | Amounts.            | Costs.                |
| <i>No. 26.</i>       |                   |                       | <i>No. 29.</i>       |                     |                       |
| Beef (soup).....     | $\frac{3}{4}$ lb. | 6 cts.                | Mutton, leg.....     | $\frac{3}{4}$ lb.   | 4 cts.                |
| Potatoes.....        | 1 "               | 1 "                   | Oysters.....         | $\frac{1}{2}$ "     | 10 "                  |
| Bread.....           | 2 "               | 3 "                   | Pease.....           | $\frac{1}{2}$ "     | 1 $\frac{1}{2}$ "     |
| Cabbage.....         | 2 oz.             | $\frac{1}{2}$ "       | Potatoes.....        | 1 "                 | 1 "                   |
| Turnips.....         | 2 "               | $\frac{1}{2}$ "       | Oatmeal.....         | $\frac{1}{4}$ "     | 1 "                   |
| Carrots.....         | 2 "               | $\frac{1}{2}$ "       | Rice.....            | $\frac{1}{4}$ "     | 2 $\frac{1}{2}$ "     |
| Oatmeal.....         | 1 lb.             | 3 $\frac{1}{2}$ "     | Bread.....           | $\frac{1}{4}$ "     | 3 "                   |
| Milk.....            | 2 oz.             | 1 $\frac{1}{2}$ "     | Oyster crackers..... | $\frac{1}{4}$ "     | 3 "                   |
| Rice.....            | 2 oz.             | 1 $\frac{1}{2}$ "     | Butter.....          | 1 $\frac{1}{2}$ oz. | 3 "                   |
| Sugar.....           | $\frac{1}{4}$ lb. | $\frac{1}{4}$ "       |                      |                     |                       |
| Corn meal.....       | 2 oz.             | $\frac{1}{4}$ "       | Total.....           |                     | 28 $\frac{1}{2}$ cts. |
| Soda crackers.....   | 2 oz.             | 2 "                   |                      |                     |                       |
| Butter.....          | 1 "               | 2 "                   |                      |                     |                       |
| Total.....           |                   | 20 $\frac{1}{2}$ cts. |                      |                     |                       |
| <i>No. 27.</i>       |                   |                       | <i>No. 30.</i>       |                     |                       |
| Shad.....            | $\frac{1}{2}$ lb. | 4 cts.                | Turkey.....          | $\frac{1}{2}$ lb.   | 18 cts.               |
| Eggs.....            | $\frac{1}{2}$ "   | 4 "                   | Fresh pork.....      | 2 oz.               | 1 $\frac{1}{2}$ "     |
| Oatmeal.....         | 2 oz.             | $\frac{1}{2}$ "       | Hominy.....          | $\frac{1}{2}$ lb.   | 2 "                   |
| Rice.....            | 2 "               | 1 $\frac{1}{2}$ "     | Potatoes.....        | 1 "                 | 1 "                   |
| Beans.....           | $\frac{1}{2}$ lb. | 1 $\frac{1}{2}$ "     | Beans.....           | $\frac{1}{4}$ "     | 1 $\frac{1}{2}$ "     |
| Bread.....           | $\frac{1}{2}$ "   | 3 "                   | Rye bread.....       | $\frac{1}{2}$ "     | 3 "                   |
| Potatoes.....        | 1 "               | 1 "                   | Milk.....            | 1 "                 | 3 $\frac{1}{2}$ "     |
| Soda crackers.....   | $\frac{1}{4}$ "   | 2 $\frac{1}{2}$ "     |                      |                     |                       |
| Sugar.....           | 2 oz.             | 1 $\frac{1}{2}$ "     | Total.....           |                     | 30 $\frac{1}{2}$ cts. |
| Butter.....          | 1 "               | 2 "                   |                      |                     |                       |
| Total.....           |                   | 21 $\frac{1}{2}$ cts. |                      |                     |                       |
| <i>No. 28.</i>       |                   |                       | <i>No. 31.</i>       |                     |                       |
| Beef, round.....     | $\frac{1}{2}$ lb. | 4 $\frac{1}{2}$ cts.  | Beef, sirloin.....   | $\frac{1}{2}$ lb.   | 5 cts.                |
| Shad.....            | $\frac{1}{2}$ "   | 4 "                   | Potatoes.....        | $\frac{1}{2}$ "     | 3 "                   |
| Pease.....           | $\frac{1}{2}$ "   | 2 $\frac{1}{2}$ "     | Bread.....           | 1 "                 | 6 "                   |
| Potatoes.....        | $\frac{1}{2}$ "   | $\frac{1}{2}$ "       | Butter.....          | 1 oz.               | 2 "                   |
| Cauliflower.....     | $\frac{1}{2}$ "   | 6 "                   | Sugar.....           | $\frac{1}{4}$ lb.   | 2 $\frac{1}{2}$ "     |
| Rice.....            | $\frac{1}{2}$ "   | 3 "                   | Beans.....           | $\frac{1}{4}$ "     | 2 $\frac{1}{2}$ "     |
| Oyster crackers..... | $\frac{1}{2}$ "   | 5 "                   | Skimmed milk.....    | 1 "                 | 2 "                   |
| Sugar.....           | $\frac{1}{4}$ "   | 2 $\frac{1}{2}$ "     | Oysters.....         | $\frac{1}{2}$ "     | 20 "                  |
| Butter.....          | 1 oz.             | 2 "                   |                      |                     |                       |
| Total.....           |                   | 29 $\frac{1}{2}$ cts. | Total.....           |                     | 43 cts.               |
| <i>No. 32.</i>       |                   |                       |                      |                     |                       |
| Salmon.....          | $\frac{1}{2}$ lb. | 10 cts.               |                      |                     |                       |
| Beef, sirloin.....   | $\frac{1}{2}$ "   | 5 "                   |                      |                     |                       |
| Oysters.....         | $\frac{1}{2}$ "   | 10 "                  |                      |                     |                       |
| Dried beef.....      | 1 oz.             | 1 "                   |                      |                     |                       |
| Wheat bread.....     | $\frac{1}{2}$ lb. | 3 "                   |                      |                     |                       |
| Oatmeal.....         | 2 oz.             | $\frac{1}{2}$ "       |                      |                     |                       |
| Rice.....            | 2 "               | 1 $\frac{1}{2}$ "     |                      |                     |                       |
| Potatoes.....        | $\frac{1}{2}$ lb. | $\frac{1}{2}$ "       |                      |                     |                       |
| Sweet potatoes.....  | 1 "               | 6 "                   |                      |                     |                       |
| Cabbage.....         | 2 oz.             | $\frac{1}{4}$ "       |                      |                     |                       |
| Turnips.....         | 2 "               | $\frac{1}{2}$ "       |                      |                     |                       |
| Butter.....          | 2 "               | 2 "                   |                      |                     |                       |
| Milk.....            | 1 lb.             | 3 $\frac{1}{2}$ "     |                      |                     |                       |
| Sugar.....           | 2 oz.             | 1 $\frac{1}{2}$ "     |                      |                     |                       |
| Total.....           |                   | 45 cts.               |                      |                     |                       |



[Since the delivery of the above address, Hon. Carroll D. Wright, the President of the Convention, has asked me in what form the statistics of dietaries of the people would be most valuable as data for determining the actual amounts of nutritive material consumed. The following brief statement suggests some points in answer to this question :

If the pecuniary cost of the dietary is the only, or the principal matter to be considered, the statement of the total amounts of meats, vegetables and other food-materials purchased may suffice. If, however, it be desired to determine the actual nutritive value of the dietary, and with this to answer the question whether the amounts of the several classes of nutrients, protein, fats and carbohydrates, are insufficient, excessive or properly adapted to the needs of the consumer, the statements should be of such sort as to permit a reasonably accurate estimate of the actual amounts of nutrients in the food. It is likewise important to know whether all the food is actually eaten, or whether a part of it is wasted.

It is accordingly essential that the amounts of each of the food-materials should be stated in pounds. The legal bushel for certain articles may have one weight in one State, and a different weight in another State. When a chemist is told that the dietary includes so many bunches of onions or cans of corn, though he may know the average composition of corn and onions as they ordinarily grow, he is at a loss to tell how much of the nutritive materials the dietary contained, because of this lack of definiteness in the statement of the amounts of materials. If the statement is made that a family consumed so many pounds of beef in a year, he is again unable to estimate the amounts of nutrients it contained, because there are such wide differences in the composition of beef of various kinds, and especially in the portions or "cuts," as the butchers call them, from the different parts of the same animal. A glance at the tables of composition of food-materials given in the address above will illustrate this point. I have been much perplexed in some attempts toward calculating the nutritive materials in dietaries from the fact that the amounts and kinds of materials are not stated with such definiteness as to permit an at all satisfactory estimate of their composition. In brief, if it is desired to ascertain the actual dietetic value of the food, or its fitness for the needs of the consumer, or if we seek an answer to the question as to whether it contains nutrients in proper amounts and proportions, and how it might be altered so as to make it better for his nourishment or for his purse, the weight of each food-material, and as complete a description as possible of each article, should be given. That an accurate estimate of any given dietary is possible even with data in the form suggested is, of course, not to be assumed. The only way to determine the exact amount of nutrients is to analyze the food actually consumed. But if the statistician's figures and descriptions are reasonably accurate and detailed, an at least approximate calculation of the composition is possible.]

During and after the remarks of Prof. Atwater, which were delivered for the most part without notes, a general but informal discussion prevailed on the interesting facts brought to light by his investigations, and the cordial thanks of the convention were tendered him at the close for the valuable information he had imparted.

Mr. Wright, as chairman of the committee appointed at the last meeting of the convention to memorialize Congress in regard to the then proposed intermediary census, reported that a memorial had been drawn up by the committee. This was printed in the proceedings of the last convention and the

gentlemen were familiar with it. A copy of this was forwarded to Hon. S. S. Cox, Chairman of the House Committee on Census. Subsequently Mr. Wright appeared before the Congressional committee at the request of the chairman, and took occasion to explain the difficulties which would be encountered by the different States if they attempted to avail themselves of the provisions of section 22 of the act of March 3, 1879, and urged the passage of such a bill as had been introduced by Mr. Cox, which should make it feasible for the several States to join the general government in taking a census for 1885.

Although Congress has failed to act in the matter, Mr. Wright believed that the suggestions of this convention would receive recognition in the future at Washington, when preparations should be made for the census of 1890.

Before that time, however, the representatives of the State bureaus should formulate a plan of coöperation with the federal authorities in that work. He believed the United States Census Bureau had been more successful with the statistics of population than with those of manufactures, and that the State bureaus, with the experience they would then have attained, would be able to assist the general government to the most valuable industrial statistics yet obtained.

On motion of Mr. Peelle, of Indiana, the present committee, consisting of Messrs. Wright, Lord and Peck, was requested to continue to act for the convention in all matters pertaining to the census.

Adjourned until two o'clock P. M.

#### AFTERNOON SESSION—THIRD DAY.

Upon re-assembling, the convention took up the subject which had been made the special order for the hour, to wit: The relations between the National Bureau, recently established in Washington, and the State bureaus.

Upon this subject, Mr. Wright, as Commissioner of the National Bureau, made the following statement in regard to his position in Washington, and his wishes and purposes for the future:

#### THE WORK OF THE UNITED STATES BUREAU OF LABOR.

ADDRESS BY HON. CARROLL D. WRIGHT, PRESIDENT OF THE CONVENTION.

Mr. PRESIDENT:—The work of the National Bureau of Labor, or, as it is really known, the United States Bureau of Labor, is one in which we are all interested, and in which we were interested before the creation of the bureau.

It has been my good fortune, as Chief of the Massachusetts Bureau of Statistics of Labor, to have the friendship, and, I am glad to say, the confidence, of the workingmen of Massachusetts; but there has been one point on which they have differed from me, and still differ, and that is in regard to the methods which I have adopted in administering the affairs of the bureau. This difference is sure to constitute a very important factor in the administration of the United States Bureau, and it lies in this, that our labor reformers in Massachusetts—and we have some very able men among them, earnest, honest men—have always felt that the bureau should be conducted as a means for agitating or discussing propositions for the amelioration of the condition of the working classes, rather than for the mere collection and presentation of facts.

It is just here that we differ, even on questions where I have been in the fullest sympathy with them, and for this reason on my part: If a bureau of statistics of labor presents facts, those facts will show their bearing and constitute the strongest arguments. If the bureau should simply present arguments even with the facts, or use its reports in agitating legislative reforms, it becomes an advocate and necessarily partisan in its views, and could expect to have but little weight attached to its conclusions.

To illustrate this, let me refer you to one piece of work of the Massachusetts Bureau and one piece of proposed work for this year of the United States Bureau.

The Commonwealth of Massachusetts enacted a ten-hour law in 1874, and many manufacturers immediately took the ground that it would drive capital out of the State; that our State would be at a disadvantage in relation to the States around us in the manufacture of the same kind of goods; and they insisted that other States should adopt the ten-hour law. They were logically correct in this if they were correct in their first proposition, because if other States enacted a ten-hour law then there would be an equality as far as New England is concerned in regard to the working day. The other States said that Massachusetts manufacturers were like the peacock who lost his tail feathers and wanted all the other peacocks to adopt the same form because it was the proper thing to do.

This question attracted a good deal of attention in Rhode Island, Connecticut and other States, until a few years ago the Massachusetts legislature directed me to investigate the question of uniform hours of labor throughout New England and New York. It was shown, as the result of this investigation, that the Massachusetts textile manufacturers, on ten hours a day, produced more goods per man, spindle, or loom than any of the States with which she competed, and not only this, but that the wages paid under the ten-hour system were greater than in any other of the States running eleven and twelve hours per day.

Now, that little statement of fact, which could not be controverted, had a far wider and more specific influence, and carried a far greater weight, than all the arguments not having that fact to go upon which the bureau could have produced or given to the public purely on a theoretical basis. This clearly illustrates my point.

Another illustration you will find in the second article of instructions which I have given to special agents of the United States Bureau, which relate to the collection of data bearing on the employment of foreign contract labor.

Problematically, what would be the result of the facts gathered under that article? Congress has passed a law recently in relation to that subject, so, perhaps, the question as a question is settled in one direction, but not in a moral direction.

Let me suppose that this investigation shows four things; first, that the imported laborer has not been benefited by the importation; second, that the domestic laborer, who has been displaced by the imported man, has not been benefited; third, that the contractor himself has lost money; fourth, that the consumer of the goods produced by the contract laborer does not get his material any less. If these four things should be shown, you have settled the question of the employment of foreign contract labor. How much more conclusive and how much more potent in discussing that question are the facts, when shown, than all the theoretical agitation of the contract foreign labor question that you can print.

For these reasons I believe it is the duty of these bureaus to follow the historic method everywhere, and the historic method is the scientific method, and that is the consideration of theories or subjects based on recorded facts, and it does not matter, gentlemen, whether the facts were recorded last night or 35 years or 40 years ago. The moment they are recorded they belong to the historic method of economics. For these reasons I have always differed from the labor reformers of Massachusetts, as I shall differ from the labor reformers of the United States in the administration of the United States Bureau.

On assuming the position of Commissioner of Labor at Washington, I directed a letter to the Secretary of the Interior defining the policy of the bureau as I should conduct it. In that letter I said: "Declaring this, then, to be the positive policy of the Bureau of Labor, this office makes its initial work that of pure fact, and any desire on the part of individuals or of associations of individuals, whether of labor or of capital, seeking more or less than this policy indicates, must be considered as their wanting the work of the bureau to conform to adopted theories or to be influential in shaping special ends. This being the case, I trust that this policy will meet the approval of all engaged in carrying on the industrial enterprises of the country, as well as of the government which has so generously established the bureau, and I assure you that no other policy can bring success, but that any variance from that declared will result in failure."

I further said: "It should be remembered that a bureau of labor cannot solve social or industrial problems, nor can it bring direct returns in a material way to the citizens of a country, but its work must be classed among educational efforts, and by judicious investigations and the fearless publication of the results thereof, it may and should enable the people to more clearly and more fully comprehend many of the problems which now vex them."

Now, Mr. President, I believe this to be the true policy of the United States Bureau of Labor. If I am wrong, the first year's work will disclose the error; if I am right, the first year's work must determine the correctness of my position. This position is taken, Mr. President, not in antagonism to the demands, requests, or theories of anybody. It does not matter to a scientific man what he shows; he should only be gratified at arriving at the truth; the fact that he arrives at the truth should be sufficient reward for him, without reference to the toes he treads on, whether his own or others', and if he is not big enough to acknowledge the fact that he is wrong when wrong, he is not fit to be at the head of a bureau. It has become a habit with me to abide by the fact itself without reference to its bearing. It is upon this basis that the State bureau has secured whatever success has attended it.

I am happy to know that many members of the great labor organizations of the country have endorsed this policy, and the President and the Secretary of the Interior desire to see the bureau administered under it, and are thoroughly in sympathy with it, and will back up the bureau of labor in carrying out such a policy.

This much in explaining to you what seems to me to be the true policy of the United States Bureau. Now, what should be its practical work?

In the first place, it starts out with only eight months in which to do a year's work. It was necessary, therefore, to make its investigations in some specific direction in order to present a valuable report to Congress at its next session. The great difficulty I have had so far in Washington has been in meeting the requests of people to investigate this, that, or the other matter. If we had

scattered our forces and investigated the convict labor question, or the condition of the negro in the South, or, on the other hand, followed the requests of the temperance organizations, or taken up various other vital matters involving the best interests of this country, what would have been the value of the first report of the bureau? Recognizing the value of this year's work, especially, I chose the question of industrial depressions, not having the ambition or conceit to think that we could develop the real causes of industrial depressions, but feeling that we could develop all the alleged causes and classify them, and learn the influence of each, and develop as actual facts whether industrial depressions are contemporaneous in all countries, and whether the severity of depressions in this country is as intense as in others; we could develop these as facts, and a vast deal of material that has collateral bearing on others, and with the hearty approval of Secretary Lamar I adopted this plan and we are bending all our efforts to this question.

In a general way State bureaus can coöperate with the United States Bureau, and can add to their State influence by supporting and upholding the work of the United States Bureau, and I am sure the State bureaus can see that if they can aid the work of the United States Bureau, that office can, to a very large degree, not only aid them, but be of great service in perfecting their work, and in aiding in the creation of new bureaus.

I have it in mind, before another year comes around, to ask Congress to provide that all State bureaus, the State legislatures consenting, shall be considered the associates of the United States Bureau, on some proper basis, and that all the services that may be rendered by the State bureaus to the United States Bureau shall be properly paid for. With such associates throughout the country the United States Bureau would be able to bring some of the most important features of each of the State reports into one report, and so bring the results of the investigations of the different bureaus into national importance, bring them into crystallized and scientific form, and send them over the country and over the world as the best product of the many original investigations of the United States. You should each bear in mind that in all this work the bureaus of the United States occupy a new and a distinct place in sociology.

It is only recently that the countries of Europe have begun to agitate the question of establishing bureaus of labor. Belgium has created such a bureau, France is discussing the question, and it will not be more than five years before the English government will establish an office on the basis of the American Bureau of Statistics of Labor.

The United States take the lead in this as they took the lead in a national periodical census. The United States government was the first to establish a periodical census of the people; this was done by the Constitution, and having set that example to the world, we have set this other example of the government making original investigations into the condition of the people, and all that relates to their welfare.

These bureaus represent a novel feature in the social questions of the world. The reports from nearly all the States having them are quoted in Europe more than you are aware of. They sometimes find their way into parliament and are used by the House of Commons, by the economists and others who have seats there, and are used to show the British government that they are falling short in making investigations into the condition of the people.

With our United States Bureau working in harmony with the State bureaus you can easily see what a power the whole chain is to become in developing the

industrial forces of our country, and not to the United States alone, but to the world, for what is for our welfare is for the welfare of England, France, Germany, and Belgium, and other industrial nations; we must not confine our work to the limits of the United States.

With this comprehensive view of the work of all these bureaus we should dedicate ourselves to the very best kind of labor and the best kind of work we can possibly undertake, and such as shall be entitled to the very best efforts of our minds. It is not likely that these bureaus have been created to gratify a fancy, or a notion; they have been created to meet the great demand, not a specific demand, but a great general demand, for clearly defined, thoroughly classified information. If there is any one thing this age calls for more than any preceding, it is in the demand for classified, clearly defined, accurate information. As General Walker has said, this desire on the part of the people leads them to catch up anything in the shape of statistics with an avidity which becomes pathetic at times. This tendency should be a warning to all engaged in conducting original investigations, and from which statistical data may be drawn. This desire demands that each one of us shall aid in the coöperative work of the United States and State bureaus, in such manner as shall lead to great good to the whole body of workers, and in no way to the damage of any.

The specific ways in which the two branches can coöperate, the Federal and the State departments of labor statistics, if you choose to call them such, are many. Take this one question which Mr. Atkinson and Mr. Atwater have so ably presented to us. You will see by the instructions that all the agents of the United States Bureau, both here and in Europe, are collecting statistics in regard to a standard ration. Such statistics will come from the great manufacturing centres of Europe as well as of the United States. All those State bureaus which see fit to canvass that question to a small degree only add to the valuable information which the United States Bureau will gather. It is not right that such information be "exclusive;" it is right to disseminate it, and so, as it is published by one and another, it becomes nationalized in its importance, and we can have as great a power for good as does the Bureau of Education at Washington, which has developed into a great institution, having all the State Boards of Education to aid its work, the results reaching teachers and educators, but not to a great extent the people. The work we have in hand is to reach in an educational way the people themselves; so, whatever we can carry from one to another in aiding one another is aiding our great work itself, and in this way we can cover most thoroughly the work to be done. There need be no jealousies and no envies, and I know there will not be. No chief should care who makes the best report, nor who accomplishes the most; the question is, has the work been done in the cause of humanity? and not whether one has made a better report than another; each should be proud that the product is of the association, and not of himself, and each should be ready to give credit to his associates wherever credit is due.

The beauty of all this, my friends, is that we are establishing a powerful chain, not of place-holders, not of salaried men, but a powerful chain of investigators whose efforts will be recognized by the people at large as benefiting the public. We must not indulge in theories or speculations, but if one of us comes to a conclusion through ascertained facts, that conclusion should be so clearly stated and so well backed by details that it is the conclusion of the public as well. It has been my aim for many years to so conduct our State work that no man should be able to say anything of my report beyond this:

"It is false." I would not allow a man to get beyond the simple statement, that the Chief of the Massachusetts Bureau is a liar. If the critic proves that I am a liar, then the whole fabric of my work falls, but so long as he can only say the bureau lies, that does not trouble me, but should he show facts which prove my statements to be wrong, then I should lose heart for the work. It should be the ambition of us all to be able to state to our legislatures the facts, and so conclusively and so in detail, that no man can stand up and dispute them. Make them authority the world over, and we can do this by hearty coöperation, by each helping the other as simply a means, not helping each other as men, but aiding the work which has been set us to do.

Another way in which the Federal and the State bureaus can coöperate and from which the larger benefit would come to the State bureaus, is through the facility with which the United States bureau can aid in furnishing you with material. Everything that comes into our till at Washington, from our own or any other government, for distribution, will be supplied to State bureaus. This costs nothing but effort and consideration, and even if it did cost, this should be done. If Congress publishes a report of interest to you, you will be supplied with it; also, if reports come from foreign countries you will be supplied, and thereby you will have somebody in Washington to see that you get these things. You cannot always get them, or know of their existence, through Congressmen, as they cannot always pay the proper attention to your requests. The monographs that have been published by the Department of the Interior, although they are published originally in the great census volumes, would be of great value to you; all such publications should be sent you at once. This will be part of our duty. On the other hand, if anything comes up in your respective States that suggests investigation, consideration, or examination over the whole country, the United States Bureau ought to expect that you will immediately inform it, so that, through its agencies in other States where there are no bureaus, like information can be gathered; we can thus come to a broad basis of presenting information, so far as it influences the whole country. In this way we can coöperate most thoroughly.

Another way in which we can work together would be through local agents. Suppose the United States Bureau should be allowed by Congress to consider all the State bureaus as its associates; that would require action on the part of the State legislatures also to allow State bureaus to be so considered; but I see nothing inconsistent in this course. To make such a system complete Congress should allow the United States Bureau to have local agents in the States where no bureaus exist. You see, the result would be that in each State, or each cluster of States, we should have somebody to furnish us with information. We should soon see the fruits of such a chain of interests in the industrial matters of the country. If a disturbance occurs, the cause can be reported. If anything else occurs it can be noted, and so the United States Bureau could, through its bulletins, keep the people of the country constantly informed of industrial matters and events. You know from experience in your individual States that an annual report cannot, with any great propriety, deal with passing events. The press deals with passing events; by the time a report can deal with them the people do not care anything about them.

These bureaus become historical in their efforts. We must have in mind the man living fifty years hence, and we must do our work so that he can use it. If you read the history of any country you find the chief lack is in the treatment of the power of industrial forces in the progress of the nation. Only a few

historians, and they are exceedingly rare, have touched this problem at all. They have dealt with administrations, with reigns, wars and conquests, but they have left out the industrial forces that have made conquests over nature, forces which constitute a nation. Mr. Green, in England, and Mr. McMaster, in the United States, are trying to correct this lack in history, but the men who will correct this for the present time are the men who deal with industrial statistics and supply the facts in such detail that the writers of history in the years to come shall feel grateful to them that they did their work conscientiously and thoroughly. So you see that all the facts presented are of historical as well as of immediate value.

There are two great lines of statistics—one of worth and one worthless.

The line of worth may not have the greatest amount of interest; on the other hand, the worthless may be the most interesting. For instance, it might be exceedingly interesting to know how many men in the country weigh over 200 pounds and have crooked noses, but the knowledge would be of no great value. In this direction the heads of bureaus must be exceedingly discreet and judicious; they must draw the line between valuable and simply interesting statistics. The interesting statistics may be the most popular, but it is a useless expenditure of money to collect them. So far, the United States bureaus have been quite free from this fault.

Now, these lines of coöperation, among many others, Mr. President, seem to me to be exceedingly valuable, and they need not conflict with the views of any man at the head of any one of the State bureaus. I think, so far as I know, the officers of the different bureaus, while they represent an exceedingly wide range of thought, have adhered to the policy outlined at the beginning to the best of their ability. I do not remember of reading in any of your reports arguments used simply for the sake of arguments. The recommendations of a bureau have no power, and have no weight upon a legislature, unless they come as a supplement to positive and original investigation of facts.

As original investigators we occupy a novel place, as I have said, and this novel place will soon become a familiar one. It is recognized now as one of the features of our State and Federal governments.

If you can with conscientiousness and without scruple pledge your coöperation, as we did a year ago, with the Bureau of Labor at Washington, without reference to whose hands it may be in, so far as its affairs may be conscientiously administered, I now have the privilege of pledging you the hearty coöperation of the Federal Bureau in return, and if we can conduct all the bureaus substantially upon the basis I have named, if we can admit into our work standards which shall elevate the labor question to much broader and more comprehensive grounds than those which generally surround it, we shall have done the working forces of our country a great and a lasting service.

Take the work of Mr. Atkinson: it is not of the slightest importance whether we agree with him or not, or, as an illustration, whether he stated the truth; he did give us an original line of investigation, and if carried out by us one which must be of great benefit to the people of the United States. The suggestions of Mr. Atkinson have been supplemented splendidly by Mr. Atwater on the food problem of the labor question, which is all the questions of progress knitted together. We must recognize the fact that the lines must be attacked all along and at every point, and that we cannot by a report or by an act of the legislature correct the wrongs we know exist; but we can find the facts of the wrongs all along the line, and by earnest, hearty coöperation, we can see the whole line affected after a while, as, in fact, it is already affected.



The diffusion of knowledge regarding the relations of labor and capital, of the laborer and the capitalist, will change, is changing, the public mind. As an instance: While ten years ago but few men recognized the inherent right of a man or a body of men to strike, such right is now freely admitted. I am not speaking of the judiciousness of strikes, or of the welfare of those who engage in them, or of the wrongs often perpetrated through them, but simply of the inherent right to strike. Not only does the public admit this right to-day, but in very many cases public sympathy is with the striker. The right to strike seems to be one of the elements of industrial progress, and the result is sure to be that we will have no strikes, for the time is rapidly approaching when the public will hold the employer, in a large proportion of the cases, responsible for a strike. This result will not come through fighting and violent revolutions, but through a better understanding of the economic relations of labor and capital, and of the reciprocal relations of laborers and capitalists. There are many works where a strike never occurs, and where, if one did, the proprietors would consider their administration at fault. Such men recognize the power of moral forces. This indicates our duty as investigators, and clearly indicates the good which can and which must accrue from the constant and impartial presentation of facts relative to industrial affairs.

Our work has now become national. It has been taken out of the line of local effort and promoted to the dignity of national work. By conscientious service only can it succeed.

If I have given you a wide field I trust it is not too wide. If we have taken a large contract I trust it is not so large that we cannot carry it out faithfully, fully, and to the great good of the generous public which has made our labors possible.

Let us feel that the greatest disgrace that can come to the service which demands our loyalty, is the discontinuance of one only of the bureaus of labor in the United States.

At the close of Mr. Wright's remarks, Mr. Hutchins, of Iowa, offered the following resolution, as an expression of the sentiment of the convention, whose members were about equally divided as to their political affiliations:

**WHEREAS**, This Convention of the Chiefs and Commissioners of the Bureau of Statistics of Labor in the United States recognize that the office of Commissioner of the United States Bureau of Labor is one demanding a high order of technical abilities combined with earnest devotion to the welfare of the industrial classes;

**AND WHEREAS**, The successful administration of the affairs of that bureau depend upon the possession of those qualities by the Commissioner rather than upon his personal political inclinations; therefore,

*Resolved*, That we hereby express our sincere gratification with the appointment of, and continuance in that office, of the Hon. Carroll D. Wright of Massachusetts, and we pledge to him our cordial support and coöperation in the exercise of his official duties.

This resolution was adopted by the convention without discussion or dissent.

Mr. Wright thanked the members for this expression of confidence in the Commissioner of the National Bureau. He assured them that President Cleveland and Secretary Lamar were in hearty sympathy with the policy of the bureau as already mapped out, and that political considerations had not been and would not be entertained in the management of the affairs of the bureau.

He spoke, not as an appointee of the preceding administration, but as an officer having the cordial support of the present.

The Hon. J. Simpson Africa, Secretary of Internal Affairs of Pennsylvania, the guest of the convention, also presented the following resolution. In ask-

ing its adoption he begged to express his personal gratification both with the courtesy extended to himself, and with the evidences of sincere and successful work, in a most important field, which had been presented to him during this session of the convention. He felt that something was due to Col. Wright for his personal courtesies to the members, and desired to give the following expression to it:—

*Resolved*, That the representatives of the several State Bureaus of Labor Statistics hereby express their acknowledgments to the Hon. Carroll D. Wright, Commissioner of the National Bureau of Labor, and Chief of the Bureau of Statistics of Labor of Massachusetts, for the valuable information imparted relative to the methods and results of the State Census of Massachusetts now in progress, as well as for his courtesy in escorting those in attendance upon the convention to many points of interest in this historic city of Boston and its environs; also to the representatives of the press for their full reports of the proceedings of the convention.

Resolution adopted.

The remaining hour of the session was occupied by a general discussion on various topics, including coöperation, strikes, and convict labor.

Mr. Bishop urged the importance of instructing workmen in the principles of coöperation, more particularly those of distributive coöperation. Productive enterprises on a large scale were usually impracticable, but the great majority of industrial communities could unite in the purchase and sale of supplies by and among themselves to their mutual advantage and profit. Several experiments of this kind were in successful operation in New Jersey, and there was a tendency to extend such efforts.

Mr. Wright stated that the Legislature of Massachusetts had authorized the publication by himself of a Manual on Coöperation for the special instruction of workmen on that subject. For this purpose an appropriation of \$1,800 had been made, and he believed such a pamphlet would prove an educational factor of great value.

Some accounts of strikes in the various States, and of their causes, management and consequences were also given, and reports on the progress which was being made in the attempt to abolish the contracting of convict labor, when the President called upon the Rev. Jesse H. Jones, of Abington, who had been in attendance, to address the members.

In reply, Mr. Jones regretted his lack of preparation, but desired to congratulate the gentlemen on the work in which they were engaged, and pronounced it second in importance to none of the instrumentalities now being employed for the advancement of civilization. The most momentous questions of the day were those which were occupying the time and thought of the gentlemen present, and although in our day no ultimate solutions might be reached, every effort in that direction was affording additional enlightenment and contributing to the better adjustment of social relations. He desired to see bureaus of inquiry and investigations on these economic subjects fostered, and was gratified to see representatives of so many of them present.

A few closing remarks were then offered by the President, when the convention adjourned *sine die*.

JOHN S. LORD, *Secretary*.



---

PART II.

---

RELATING TO STRIKES IN MICHIGAN.

---

MARCH 1 TO DECEMBER 1, 1885.

---



## PART II.

### STRIKES.

---

The number of interruptions of labor by strikes, and cases of enforced idleness in Michigan since March 1, 1885 (the date of our connection with the Labor Bureau), has not been great, and yet very much larger than the welfare of those engaged in them has warranted, while, in at least one instance, the number of those out of employment, the number of days of idleness, and the pecuniary loss to the employés, make it the greatest in magnitude known for many years, if ever, in our State.

The following instances of interruptions of labor are given as they occurred according to date, and comprise the principal ones coming to our knowledge:

#### AT CHEBOYGAN.

##### “RIVERMEN’S STRIKE.”

On the 24th of April, the “rivermen” or “drivers” at Cheboygan asked for an increase of wages from \$1.50 to \$2.00 per day. Employers refused to grant the request, and were enabled to adhere to their position because of the large number of applicants for work living in the surrounding country.

No violence was offered or threatened, and most of the strikers resumed work at old wages. The strike lasted three days.

#### AT DETROIT.

##### “PINGREE & SMITH STRIKE.”

On the 5th of May, about 200 of the employés of the boot and shoe manufacturing firm of Pingree & Smith, in the City of Detroit, left their work because of an “order from the union.”

The reason of the “order” being given, was the refusal of the firm to sign an agreement that their factory should henceforth be known as a “union shop.” We think our information reliable, that some of the most prominent Knights of Labor in the State attempted to adjust the differences between the

firm and the union. Neither party would recede from their position. The firm employed a number of other hands. The strikers patrolled the streets near the factory, and, by talk and argument, endeavored to influence applicants for work and the customers of the firm.

Meetings were held and measures to form a coöperative boot and shoe association were taken. An appointed committee reported articles of association, which were adopted. A company with an authorized capital of \$50,000, to be divided into shares of \$5.00 each, elected officers, and subscriptions to the stock have been made, though not so rapidly as the interests of the company demand. Some machinery has been purchased, and work is expected to be commenced in December, 1885.

A "boycott" was placed upon the firm's goods, and the situation remains as above stated.

The following communications, received from Messrs. Pingree & Smith and one of the men who "went out," in reply to requests for information by the Commissioner, give statements from both sides.

Under date of May 28, Messrs. Pingree & Smith said :

"We are glad to give you all information concerning the strike in our possession.

"The committee on arbitration brought in a bill headed with the following: 'We do declare that the manufactory known as Pingree & Smith's Shoe Factory be recognized as a union shop.' To which we made following reply: 'This shop is and will remain a free shop; we have never asked an applicant for work whether he belonged to a union or not, and never intend to do so. We don't object to employ non-union men. We think that the state of the times is such that a reduction of wages would be proper and to the interest of employer and employé, but as the men do not think it to their interest to accept a reduction, we will continue to pay for one year, ending May 1, 1886, the same prices to bottomers that we have paid for the past year—May 1, 1884, to May 1, 1885; burnishing machines to be run by day labor, as at present, and at same prices as paid past year. We make no reductions.'

"Upon receipt of this, the committee, composed of three persons, two of whom formerly worked for us, called, and while they acknowledged the question of wages could be easily adjusted, said we must consent to the clause or have a strike.

"From action before and since the strike, we think these parties were ineligible to serve as a committee. We asked them for a written reason of the strike, but they refused to place their reasons in black and white. They now say, after we have got 150 new hands at work, that if we will hire the men all back they will cut off the offensive heading. Which we, of course, cannot do.

"We are willing to employ all of them that we can use at once, and more as trade increases, but have pledged ourselves to give men now with us a job while they work well and satisfactorily. Had this proposition (which has never been made officially) been made during the first week, we could have settled, but it has now gone too far.

"There has been a good deal said about contracts, for an excuse. We have none outside of their control, and have not had since July, 1884.

"Since the strike they have had from two to ten on patrol—occasionally using vile epithets to men at work and interviewing customers—so far without effect.

"We paid out in cash every Wednesday last year, in the striking department, \$994.55, and in other departments more than as much more, employing as a total about 600 persons. We kept factory running every day, and gave each and every one an equal share, so far as possible, our average for the year being over 40 full weeks.

"How much we shall lose we cannot estimate. Whatever the loss is, we prefer it rather than allow outsiders to run our business.

"In bottoming department, during the last three years, we have put in machinery and raised prices a little. Take lasting as an example; we put in tackers, saving half a cent per pair (men charge one cent when done by hand), and on one grade of work the advance has been from three and three and one-half to five and five and one-half cents per pair, besides the half cent. In the stock room, wages of experienced hands ranged from \$11.00 to \$15.00 per week, *according to ability*.

"We seek to make piece work where possible throughout the factory; in other places, where work is by the day, we intend to pay according to a man's ability, believing that to be the true way.

"We regret that a strike should happen, and would willingly do all in our power to avert it, knowing that the chief sufferers are innocent women and children.

"Yours truly,

"PINGREE & SMITH."

The name of the workingman (one of the strikers) writing the following letter is withheld by pledge of the Commissioner. He said, under date of June 8, 1885:

"Your favor at hand, and in answer would say that I consider that the feeling that augmented, and finally brought about the strike in question, was started about five years ago, while we were organized under the order of 'Knights of St. Crispin,' which did not allow members to learn green help.

"One of our members took a contract for a certain part of the work, and run in green help and young boys and learned them that branch of the business, and was expelled from our union.

"It has been the aim and determination of certain ones to remove him and all others holding like positions.

"It has also been the custom of Mr. Pingree to meet a committee from our organization and adopt a scale of wages (not including wages on the work made by the contractor) every spring, for the ensuing year. Being fully organized, they decided to make a union shop and make wages on every thing made in the building.

"Mr. Pingree refused to arbitrate with the executive board, who styled themselves the 'arbitrators on behalf of the Knights of Labor,' but offered to talk wages in a business way with them if they would 'cut off' the head of the bill—'resolved that this shall be known as a union shop.'

"Unfortunately for us, there were two of the board who had previously been discharged from the firm and could not obtain employment in the shop again, and Mr. Pingree could not arbitrate with these men acting as arbitrators, and



they got into a dispute with him in his office and had high words, and old personal matters were brought up while they were acting in their official capacity.

"We were called out by that board on the following day, but, on account of strong objections by some, we were allowed to remain one day more to complete our work, and then we went out.

"There has been nothing done, on the part of the board, to bring about a settlement, by offering any conciliation of better terms of arbitration than first offered. Up to this time, the firm have been just as stubborn on their part, and, I am afraid, they are getting further from settlement as the days pass by, and I think at present about two-thirds of their places are filled by non-union men. They are making about one-half the amount of work that they were before the strike, and there is only one man returned to work, and that was during the first week.

"I cannot give any definite idea as to wages, only in our own department. They ranged from \$9.00 to \$15.00 a week per man, and were satisfactory, generally. Their position, after the strike, was very poor, for the majority had to call on the Order for help, which proved very limited, indeed, as they have been carrying several heavy strikes in different parts of the country.

"The strike is about \$10,000 damage to the men at present; it will grow less as the men find employment elsewhere. Many of them, knowing their 'heads would be cut off,' are more determined to prolong the strike, as they have nothing to lose.

"I am a citizen of the United States and have been in the shoe business sixteen years, and in employ of this firm about five years. My opinion, as to the advantages gained by employes, is not favorable, and strikes should never be entered into only as a last resort, after all honorable means have been used to settle difficulties arising between employer and employé by *disinterested* arbitrators.

"I consider this strike entirely unnecessary, and, if managed judiciously, could have been settled without difficulty.

"Yours respectfully,

OSCODA.

#### "'LONGSHOREMEN OR DOCKWALLOPER'S STRIKE."

On the 13th of May the 'longshoremen at work on ten boats in port at Oscoda struck for 40 cents per hour.

The men on two boats belonging to the firm of Pack, Woods & Co. refused to join the strikers, claiming that, as their pay was for steady work, they were satisfied. On the 14th of May the request of the strikers was acceded to and 40 cents per hour paid, except in case of firm above named. On May 19 the men on Pack, Woods & Co.'s boats were prevented from working by the 'longshoremen who had struck. A few arrests were made and quiet restored.

#### MARQUETTE.

##### UNION AND NON-UNION TROUBLE.

On the 15th of May a disturbance occurred between union and non-union men, over the loading of ore vessels at Marquette. The union men became dissatisfied with their treatment by the bosses. Non-union men attempted to

take their places; a clash occurred, and shovels and picks were freely used as weapons. The leaders were arrested and an amicable adjustment secured.

### SPRINGWELLS, WAYNE COUNTY.

#### "BRICKMAKERS' STRIKE."

Monday, May 18, the men employed in two of the brickyards at Springwells refused to go to work unless their wages were raised. Visiting other yards, they were joined by the employes (in some instances willingly, and in others through fear of being roughly handled, threats being openly made and clubs shown), until about 350 men and boys had become engaged in a strike for increased wages, and all the yards were idle, or nearly so.

A personal visit and investigation was made by the Commissioner to the scene and into the causes of this strike, with the following result:

There are from 13 to 15 brickyards at Springwells usually at work. The market for the product is principally the city of Detroit, whose business center is distant about three and one-half miles. The price of brick, at time of strike, was \$4.50 per 1,000, delivered to purchaser in the city. The cost of hauling was \$1.00 per 1,000, while a road toll of ten to fifteen cents was paid for each team or load (a load being 1,500 brick). This made the price of brick at the yard less than \$3.50 per 1,000. Owing to competition and low prices, the manufacturers, in nearly every yard, reduced the wages for 1885 about ten per cent below those of 1884. So that persons receiving \$1.50 per day in '84 (the lowest average wage) received but \$1.35 for '85. The total number of months in each year in which work is given to the majority of the hands is five and one-half; some of the married men, however, are employed through the winter in various grades of work.

The nativity of the workmen in the yards at the time of the strike would closely prove to be Americans, Irish and French, 10 per cent; Polanders, 35 per cent; Germans and Bohemians, 55 per cent.

In close proximity to the brickyards were noticed a large number of saloons, said to be fifty to sixty; among them, one prominent resort, having a public hall in the second story. At this hall large gatherings were frequent on Sunday, and at these Sunday meetings beer was said to flow freely, and many exciting speeches were listened to. For a few weeks prior to the strike these meetings were addressed by men from Detroit, and their theme was that the brickworkers were receiving too low wages, that by unitedly stopping work the men would force the employers to pay, at least, \$2.00 per day. Taking the statement of the strikers as our authority, this advice was generally fringed with talk of a socialistic nature, if not strongly communistic. That an influence, by sophistry of argument, was had over the listeners to these speeches, and caused the workingmen to make the strike, is shown by the following

interview with a group of 35 strikers, held by the Commissioner through interpreters:

Commissioner.—“Men, what made you strike?”

Workmen.—“We were told we could get \$2.00 per day.”

C.—“Who told you so?”

W.—“The men at Faustman’s Hall.”

C.—“What men?”

W.—“From Detroit.”

C.—“Were you told how you should get the increase of wages?”

W.—“If we quit work our bosses would have to pay us \$2.00 per day.”

C.—“Had you asked your employers for increase of wages?”

W.—“No!”

C.—“Do you think your employers can afford to give you more wages?”

W.—“No!”

C.—“Why not?”

W.—“The price of brick is too low. If the bosses would combine together the price of brick and wages would go up.”

C.—“Did your speakers advise you to organize in any way?”

W.—“Yes; they said we should agree together to strike, and then sign papers, and pay in some money and buy some guns and drill.”

C.—“How many of you men before me signed this agreement and paid any money to a fund?”

The hands of two Polanders were raised, the rest declaring that they did not like the inducements held out by the speakers. When these two were asked why they returned to work, they answered that they saw their mistake and now believed their advisors expected to make money out of them. This, then, is how the men came to strike. Having quit work, they became idlers, and, as such, the saloons were generally a resort. A few proprietors of the saloons closed their doors, others declared “free beer,” and some rolled kegs of the drink into the street, for free use, to show their friendship for the strikers, who, becoming overloaded, became excited, with inclinations to disturb the peace, while a few showed a disposition to injure property. Prompt and energetic action by Sheriff Stellwagen and his deputies alone prevented serious trouble. While the employés of these brick-yards are nearly all natives of countries whose people are known as lovers of beer as a drink, it will be readily seen that in order to support so great a number of saloons, the amount of beer consumed each day, as their part of the support, by the brick workers, must take a greater percentage of their wages (allowing their right to use their favorite beverage) than is fair and just to their families. Men spending from ten to twenty per cent of their daily wages for beer or other stimulants cannot be expected to save and buy homes, and they may be expected to always consider themselves underpaid. An interview with a German in the yard of Greusel Bros. illustrates the difference in habit of saving. He said he began work

in that yard 23 years ago for \$26 per month, working in the pit. Now he received \$2.70 per day. He owned an improved 40-acre farm near Mt. Clemens and had money enough in the bank to buy another. He had no sympathy for men who, in hard times, spent so much of their earnings at the saloons.

In this yard the wages were found to be: For foreman, \$2.70; fire burners, \$2.35; setters, \$1.45; laborers, \$1.35; being a reduction of ten per cent from wages of 1884. In Conrad Clippert's yard the wages were: For setters and laborers, \$1.50; for boys from 12 to 15 years of age, for trucking brick from machine to various parts of yard, \$1.37½ per day.

In this yard the work was known as stent work—the men are expected to make a certain number of brick per day. Of their own volition they begin work at 4:30 A. M. and continued until 9:30 A. M., beginning again at 12:30 P. M. and working until 5:00 P. M., making the day's work nine and one-half hours. They work very rapidly, but said "it is not so fatiguing as when we work more hours." Valuable machinery is used in this and many other yards. In Greusel Bros.' yard the men work by the day of 11 hours. The proprietors claim that their product is better in quality, and the work less wearing upon the men than where the rushing of stent work is adopted.

In answer to the question, "Why do you not combine as manufacturers, put up the price of brick and pay better wages?" Mr. Clippert said: "We do not pay wages enough, I know it, but we pay every cent we can afford to at present price of brick. We cannot combine and put up price of brick because small concerns making inferior brick would lose sales; contractors care less for quality in some cases than for price and will buy where they get least price."

A large portion of the workmen in the yards are single men and board among the people in the vicinity. Many of the married men live in the buildings owned by the proprietors. These buildings are generally in rows of five to eight, and, save in one or two instances, are one story in height, and contain two or three rooms. The average would be a main or living room from 14x16 to 15x18 feet in size, with a rear lean-to, about 12x14 feet, used as a kitchen. No rents are charged for these buildings during the summer, but through the winter months some proprietors charge from \$10 to \$12 for the season. Visiting many of these buildings, the habits of the occupants were plainly shown by the condition of the interior. Some were very cleanly and particularly neat, others were absolutely filthy and the proprietors stated that they had become so since taken by the occupants. Many of the rows of tenements, if furnished with an exterior coat of paint, would lose entirely the appearance of want and distress which the interior did not show; while in two or three yards nothing but new buildings could ever make a comfortable habitation, the shanties now being used by tenants being beyond the power of occupants to make comfortable.

The strike lasted four days, the men returning to their work at old prices, save in one or two instances.

## LANSING.

## STRIKE OF TRENCH DIGGERS.

On the 16th of June, the men engaged in digging the trenches for the water pipes in the city of Lansing stopped work, claiming that it was a "physical impossibility" to perform the work required of them in order that they earn \$1.25 per day. The employers were contractors from another city. They made the stent of each man to be the digging of a trench 30 feet in length, six feet in depth and two feet in width, for which \$1.25 would be paid. At the time of stopping work the men were digging in clay, and the pick had to be used freely.

The contractors claimed that so large a portion of the work would be in sand that the average would prove their terms to be just. This view of the case was not indulged in by the citizens generally, and the mayor was requested to use his efforts in securing better terms for the workmen. It was through the efforts of the mayor that the workmen preserved a peaceable condition, and were finally given work at satisfactory wages.

## BAY CITY AND SAGINAW.

## "SAGINAW VALLEY STRIKE."

July 6 to September 1, 1885. The stoppage of the lumber and salt industries of the Saginaw Valley through the months of July and August, 1885, entailing upon the workingmen and merchantile interests of that section the greatest pecuniary loss known for years in our State from similar cause, excited an interest not confined to Michigan alone.

Desiring to arrive at the cause and effect of this great stoppage of work, the Commissioner and Secretary of the Bureau, F. O. Gullifer, began an investigation on the 16th of July, and completed it, so far as taking statements were concerned, on July 23.

We found upon our arrival nearly every lumber and shingle mill and salt block, together with the work of the boom company, idle. One hundred and fifty of the Chicago Pinkerton "special police" were on duty among the mills. Ten companies of State troops were under arms in the three cities. Meetings of workingmen were being held by appointment of the speakers, and while no disturbance of the peace was heard of during the week of the investigation, there was the air and the evidence of great depression upon all classes of people, because of the idle mills upon the river.

That the investigation might be thorough, we visited employes in the mill yards and about their homes; called upon employers at their offices or about the board of trade; saw county and city officials at their offices; interviewed many business men and attended two public meetings, at which the principal speaker was Representative T. B. Barry.

From these visits it was found that there were many workingmen who had supposed that the "ten hour law," passed by the last legislature, went into effect on the first of July, and were not aware that the law, not having been given immediate effect, could not become operative until 90 days after the adjournment of the body that passed it. It was found that the subject of the law going into effect on July 1 had been talked of during the month of June, but that no plans had been discussed as to enforcing the law at that time.

July 4, 1885, came on Saturday. As is the custom, the mills all closed on that day and remained closed over Sunday. Monday, July 6, all but three or four mills were running. One of these was closed that the boilers might be cleaned, another for lack of a full gang reporting. Both of these were below Bay City, on the river, and it is here that we believe we find the commencement of the trouble that by Friday night, the 10th of July, had extended the length of the river, or about 20 miles. The following is the statement of W. B. Rouse, whose mill was closed for repairs:

STATEMENT OF W. B. ROUSE, MILL OWNER.

"My mill was closed on Monday, July 6, for the purpose of cleaning out the boilers. Some six or seven of the men who were about the mill took their dinner pails and started for home. One man took a bandana handkerchief from another man's pocket, fastened it to a stick, and, as they were near McEwen's mill, waived it in the air and shouted, 'Hurrah for ten hours.' McEwen's mill was not running, some of the men not having got over the 'fourth,' and the others were around the mill. The shouting of the man started them going, and the strike began. The man has been here since, and says he only did it for fun and did not think of starting a strike. But it looks as though McEwen's men had been talking it over and were all ready for the word.

"The papers published the fact of the passage of the 'ten-hour law,' but did not state the time when it went into effect, and many mill men thought it was to become a law July 1. I had paid no attention to it, and did not know when it took effect.

"My men come around at times and there is no ill-feeling between us. I have not tried to start since the strike commenced. One night a small party came to my mill and ordered me to change my fires—which were kept going for fire protection—under other boilers, as they said they did not like to see smoke coming out of the mill chimney, and said if I did not do it they would come in the morning with sufficient force to compel me to do it. I paid no attention to the orders and they have not come back. I employ from 40 to 50 men, and my pay-roll averages \$87.00 per day. I pay once a month. My men have never asked me for an increase of pay, decrease of hours, or for a change in pay day.

"My docks and salt sheds are full, and I don't care to run. It would be a benefit to me if the strike did not end for a month. Politics is at the bottom of the matter."

The above statement was made July 22. From this starting point we follow the work of closing the mills in Bay City by giving the statement of Sheriff Brennan, of Bay County, which was made July 19.

## STATEMENT OF MARTIN BRENNAN, SHERIFF OF BAY COUNTY.

"This strike commenced on Monday last, the 6th inst. Some mills in lower part of city, or rather in Dolsonville, were closed for repairs. Men from these mills had meetings with men who have not been working this season, under the lead of three men named Brookmyer, Ratelle and Diedrich. They were formerly mill workmen. I got a telephone from Eddy Bros. that a crowd was trying to stop their mill. I went down and saw Brookmyer and others, probably one hundred. I told them they must not interfere with any mills or any workmen. They all said they would obey the laws. There was no danger of the regular mill employes striking if left alone.

"The crowd went from there to Pitts & Cranage's mill. A number of Dolson, Chapin & Co.'s men went with them, that mill having shut down. The men working for Pitts & Cranage would not quit work.

"Monday night a large meeting was held in the first ward, some four hundred being present. D. C. Blinn, one 'Revere,' and others made speeches, advising the closing of every industry.

"Pitts & Cranage's mill started Tuesday morning, but the men went right out. The crowd did not force them out, but stood outside the mill beckoning and shouting for the men to quit, and they quit and shut down the mill.

"The crowd sent a committee into Eddy Bros.' mill but the workmen would not talk with them, but kept on working. They then went to Hay, Butman & Co.'s mill where they were determined to stop the mill. I had six men with me and ordered them to desist and not interfere with the mill.

"Tuesday night they had another big meeting in the park. Wednesday morning the crowd had doubled by accessions from the mill men where the mills had closed and from the idlers. Probably 500 went to Folsom & Arnold's. I ordered them not to go into the mill or interfere, and none of them entered the mill. Folsom & Arnold's men—a part of them—had not reported for work in the morning, and the rest of them weakened and would not work. I think some of them were afraid to go to work.

"The crowd then went to the pipe factory, or pipe works. I went with them. A committee was sent into the mill, and the men quit work and joined the crowd. Eddy Bros.' men also quit. The crowd, now increased to probably 800, went to Hay, Butman & Co.'s mill. They were getting more boisterous and noisy and were determined to stop the mill. They had clubs and were shouting; men went into the mill; they were ordered out, and went. Loaded carts attempted to come out, and the crowd commenced throwing clubs at the horses and drivers. I had six deputies and six policemen and endeavored to stop them. The men had clubs, and both myself and my officers were hit; I was hit with a slab. We arrested two of the leaders and I sent them to the station, a third man was arrested at the Third street bridge for striking a policeman, and he was sent to the station. We in the end drove them off.

"I then went to Birdsall & Barker's mill, but it had been shut down before the crowd or myself arrived.

"The crowd were all sober. The leaders were generally Polanders, who were shoved to the front by their more cunning backers. Thursday I sent a man to explain to the Polanders how they were breaking the laws and what danger they were getting themselves into, and they have not come out since. I went to the lockup to see the men who had been arrested. Chief of Police Murphy had struck one of the men after his arrest, and it was at once reported that he had killed him, and great excitement was created and a large crowd

gathered. I ordered them to go away, and told them the man was not hurt and that they should be dealt with fairly. Many went away, but still the crowd increased, many coming through curiosity. I went to the prosecuting attorney to advise an immediate hearing for these men to allay the excitement, the crowd wanted the men bailed at once. The prosecuting attorney was absent. On going back, I learned that the mayor was going to release the men. I found him at the lockup ready to let the men go. I forbade him doing so, and said I had rather see the lockup torn down than do it. But the mayor was bound to let the men go. I again told the crowd to leave and the men should be dealt with fairly. This action of the mayor knocked the pluck all out of the police. I had been struck by one of the men, but I found I could do no better, and with a captain of police took the men away up street and told them to go home. One of the men told me that he had done no work this summer. Thursday, the 9th inst., Representative T. B. Barry came down here from Saginaw with about 50 men. A meeting was held; Barry and Blinn made speeches. I learned that the men with Barry from Saginaw were striking 'dockwollopers.' Barry invited 500 or more to go to Saginaw the next day. He told them they had done right so far, and advised them to keep on and close down everything. In the afternoon he advised them to close the salt blocks. I went with the mayor and saw Mr. Barry Thursday afternoon, before his speech. I told him that the steam was kept up on the salt blocks for fire protection, and they must not be stopped. Told him to tell the crowd this and that they must not interfere. He promised to do so, and then told the crowd what I had told him and then advised them to close the blocks.

"Friday, the crowd, under the leadership of Blinn and others, got some barges and some tugs to tow them to Saginaw. When they were ready the captains of the tugs refused to take them without a permit, which they could not get. They came to me and wanted me to assist in getting a permit. Do not think they had any permit,—but they went. Blinn told the crowd to go up the river and down the river, and at every place where they saw steam, to shut down the works. The crowd returned from Saginaw about 10 p. m., and marched to the first ward.

"Saturday forenoon, Blinn spoke to the crowd and urged and advised them to stop every industry in the city; drive watchmen from the yards; barn-men from the barns, so that the proprietors would have to take care of their own horses; and even the servant girls from the kitchens.

"On Saturday evening, the Knights of Labor assumed control of the strike and shut down on Blinn. Sunday afternoon I was called on by a committee of the Knights of Labor, who stated that they had requested the mayor to appoint fifty or more K. of L. as special policemen. The mayor couldn't do it, and they now wanted me to deputize them. I told them I would do so, but the men must be under my absolute control, must be ready at all times to obey orders and to protect property in all cases. None of the Knights of Labor came to be deputized.

"Monday, there was a very large procession and speaking in the park, a large majority of the crowd being armed with clubs.

"On Tuesday the Governor came from Saginaw and was met at the Frazer House by the authorities and a large number of citizens—about 170 being present—and talked over the situation thoroughly. There was on the street a large procession carrying banners or a banner upon which were the words 'In God we Trust,' 'K. of L.' I informed them of the Governor being in the Frazer House.



"No citizens were *invited*; it was supposed that all interested in the matter would come. After a thorough discussion, the following resolution was offered and adopted unanimously:

"*Resolved*, That a committee of five (5) be appointed to set forth the reasons why protection is necessary, to request the sheriff to call upon the Governor for sufficient aid to preserve the peace, and to consult with the sheriff hereafter.

The following persons were named as the committee:

E. A. Cooley, attorney at law.

L. L. Hotchkiss, lumber manufacturer.

W. H. Tousey, hardware merchant.

H. P. Merrill, wholesale grocer.

L. S. Coman, druggist.

"I met this committee and stated that I did not know as the time had arrived to call for troops, as I had seen no violence since Wednesday. Mr. Barker, of Birdsall & Barker, appeared before us and stated that that same morning strikers had come to his mill, assaulted an employé with an iron poker and threatened to knock out his brains. Mr. Lewis, of Miller & Lewis, also stated that about the same things had occurred at his planing mill, where the men were only working ten hours at the usual pay. Mr. Cranage, of Pitts & Cranage, said about the same things had occurred at their salt block the same morning, strikers pulling the fires from under their furnaces.

"I then said if such was the case, in the face of assurances given by the Knights of Labor that they would preserve order, I should certainly make a requisition on the Governor for troops, and I did so. The Governor immediately ordered the troops and they arrived Wednesday morning, the 15th. The Pinkerton men had been ordered by the mill owners previously and had arrived Sunday.

"If I could have had one hundred men to deputize at the outset I could have stopped all trouble, but the men would not agree to serve only to protect the property of their own employers. It is Grand Army men who are now offering their services as deputies."

In answer to the question if he did not think the troops could be spared now and sent back to their homes, Mr. Brennan said:

"I think the troops can be spared now; they can be brought back quick if necessary. Think the men have settled down to a determined hang. I could not get arms from the Governor for deputies. I think each city ought to have arms for the purpose of arming deputies, or the Governor ought to have the same power to furnish arms that he has to furnish troops."

The troops were all withdrawn from Bay County on the two following days.

Having noticed how the mills were closed in Bay County and the embarkation of the invited strikers for Saginaw County, we turn to the landing of the party at East Saginaw and give the statements of officials concerning the same. It is to be understood that the river divides East Saginaw from the town of Carrolton and from Saginaw City, and that parties crossing the bridges from East Saginaw passed out of the police jurisdiction of that city and could not be arrested by its police for misdemeanors committed on the opposite or west side.

## STATEMENT OF T. DAILEY MOWER, CHIEF OF POLICE, EAST SAGINAW.

"The first strike occurred among the 'dockwollopers' last Tuesday, the 7th instant. They had been receiving 30 cents an hour for loading vessels and struck for 40 cents. Mr. Barry arranged with these men to go to Bay City with him and invite the men on a strike there to come up to Saginaw.

"When the strikers came from Bay City they landed at Ten Eyck's dock and were met by Barry and the striking 'dockwollopers,' with a band. They went to German street, where they were addressed by Barry and adjourned for dinner.

"There was a meeting of the board of police commissioners, the mayors of East Saginaw and Saginaw, the sheriff and myself being held at the police headquarters. We sent for Mr. Barry; did not find him at first; found Mr. Blinn and invited him to the meeting; soon after found Mr. Barry, who also came.

"Mr. Barry was asked what his programme was for the afternoon. He replied that their object was to make ten hours a day's work. The mayor of this city asked just what they were going to do. He said they would have committees go to each mill and invite the men to join them. In answer to the question by Commissioner Carlisle, what he proposed to do if the men would not join them, he said we shall have nothing to do with them, won't speak to them, will ostracise them, if we meet them on the street will pass them by, will 'boycott' them.

"When we came out Blinn said they came as law abiding citizens and would not do any harm or break any laws. Mr. Barry said it was his strike; the men came on his invitation; it was his movement and he would be personally responsible for any and all damages or misconduct.

"I sent Captain Walsh of my force over the bridge with the crowd—another member of the force went part of the way—and the captain can tell you what he knows of their actions."

## STATEMENT OF CAPTAIN WALSH, EAST SAGINAW POLICE.

"There was, I think, from 1,000 to 1,200 in the crowd when they crossed the bridge, about one-half from Bay City, Barry and Blinn leading. They marched very regularly across the bridge, but when they reached Patterson's mill, which is just at the end of the bridge, they made a grand rush for the mill. Part of them were armed with clubs and began shouting 'Shut her down,' 'shut her down,' 'come out,' 'come out.' They crowded into the mill in a big jam. The machinery was kept running for some minutes after the crowd went into the mill—perhaps five or seven—but was then closed. The mill men did not fall in with the crowd; they did not seem to be prepared for it, and very few went with the strikers when they left. I was only sent to watch them and see what they would do; this mill is in Carrollton.

"The crowd then went to Whittier's mill and acted the same. Neither Barry nor Blinn tried to stop them. Men rushed into every door and opening in the mill. This mill was closed; then the crowd divided, part going to Williams' mill and part to C. K. Eddy's. I saw them going among the slab pilers, pulling and hauling the slab men about and obliging them to quit and go with them.

"The crowd at Williams' mill, after closing it, turned about and joined the Eddy party. Then I came back and afterwards met the crowd at Wright's

mill. Did not see the sheriff that afternoon. I saw the crowd break in the gates at Barnard's mill. I did not go inside, so did not see the attack on Chapman nor any of the work that was done inside. I saw Barry inside the fence talking to men outside and telling them to keep quiet until they returned—"they" being the committee who were going into the mill. The crowd obeyed. Barry appeared to have complete control of them.

"One man from Bay City had on a plug hat on which was painted '10 hours,' he also had a kind of banner on which were the words 'ten hours or no sawdust.' He had climbed on top of one of the gate-posts. I saw some one signal him from the inside of the fence. He jumped down into the yard, when the crowd surged through the gate and into the mill yard. It was a howling mob. I expected trouble and kept on the outside of the crowd. Saturday was comparatively quiet; there were some speeches made and the balance of the mills were closed."

The same day that the above statements of police officials were made, July 20, the following statement by Sheriff McIntyre, of Saginaw County, was given to us in his office at the jail in Saginaw City:

STATEMENT OF ANGUS MCINTYRE, SHERIFF OF SAGINAW COUNTY.

"The morning we heard the strikers were coming I was in the court room at Saginaw City. A messenger came and asked me to go to Burr's bank. I did so. Burr said: 'Mayor Estabrook of East Saginaw has telephoned for you and Mayor Benjamin to come to police headquarters, East Saginaw.' We went and there met Mayor Estabrook, the police commissioners, and some citizens of East Saginaw. This was about 11 o'clock A. M., Friday, July 10. Heard there one boat load of men from Bay City had landed at Ten Eyck's dock, near F. & P. M. Railroad. Messages were received from mills along the river which the men had passed coming up. I was not prepared to meet them, and, in my opinion, it was a hard matter to stop them. I did not go near them when they landed.

"Each man of our meeting had suggestions to make. One thought it best to call out the militia at once and march them on a street parallel with the streets the crowd took. I did not agree with him, but thought the troops would irritate the men.

"The crowd, after landing, went to German street and were addressed by Mr. Barry. Don't know whether Barry was with them when they landed; don't think he was. D. C. Blinn was with them. After the speech the crowd dispersed for dinner. I proposed at the meeting, and some agreed with me, to send for Mr. Barry and bring him before the meeting and ask him what the crowd were here for and what he intended to do.

"A proclamation was then drawn up and signed by the mayors of East Saginaw and Saginaw City and myself, allowing them to go through the streets, but warning them to be peaceable and not interfere with any one.

"Mr. Blinn came before Mr. Barry did; did not send for Blinn; I knew nothing of Blinn until he came. Soon after Barry came; he was asked the business of the crowd and what they intended to do. He said he had been called to Bay City the day before and had invited the men to come to Saginaw and have a good social time. The men came and he intended to march peaceably and quietly to each mill and invite the mill men to come out of the mill

and ask that ten hours be a day's work. Don't think '*same pay*' was mentioned. He said if any of the mill men wanted to remain at work they could, but the rest would have nothing to do with them; wouldn't interfere with them or associate with them. Don't know as he was asked if they would enter mills and force workmen to quit. He (Barry) pledged himself if any depredations were committed by the men, we could hang him for it. Said he was responsible for their good behavior, there should be no violence and they would act like gentlemen.

"I went from the meeting at East Saginaw police headquarters to organize my forces in Saginaw City, only intending to keep order, as I knew I had not force enough to stop them. I did not see them at Patterson's mill, or any mill, before they came to Court street. I first saw the crowd at Court street, in Saginaw City. Barry was heading the Saginaw men and Blinn the Bay City men. There was about 500 in each crowd. I had no conference or parley with them. They were here about one and one-half hours. They had been to three mills in Saginaw City before I saw them. They shut down Geo. F. Williams & Bros.' mill by turning off the steam; myself and under sheriff had followed them to Williams' mill. I think it was men from among the strikers turned off the steam, but am not sure; a number went into the mill.

"Could not say whether the workmen of mills visited joined the crowd after the mills shut down or not.

"From Williams' they went to N. & A. Barnard's. Myself and under sheriff took a short cut over to Barnard's from Williams' mill. The street gate was locked and police officers at the gate. Think there were six—four, or five, or six—maybe more; we only had ten in the city. A large crowd remained at the gate. Mr. Barnard told me he forbid them coming in. Mr. Barry and some more men came into the yard; they must have jumped the fence, but I did not see them, as I was inside the grounds. Two or three men, one being Barry, went up into the mill, and after being there some time came down. Barry stood talking with me and the under sheriff; told us men wanted the ten hours, but did not like to quit. Don't know as he said they didn't like to quit. While talking with Barry about the situation, a crowd of, I should judge, one hundred came through the gate into the mill yard. Think they pushed the gate before them. Think this gate is across a street which runs some distance into the yard, but Barnard had permission from the Council to put the gate there, so it was the same as his own property. The crowd marched up to the mill and commenced throwing chunks, blocks, clubs, or whatever you have a mind to call them, at the mill. Barry ordered them to stop right off, insisted upon it, and they stopped. The mill was closed after the club throwing. Barry's influence made them stop throwing clubs.

"I then heard some man had drawn a revolver on some of the crowd, one of Barnard's men. I saw a cluster together in lower part of mill and was making for them when Mr. Chapman, the mill foreman, was passing through the lower part of the mill; some one in the crowd said '*there he is,*' and the crowd surged right in towards him and commenced striking at him with clubs, Mr. Chapman backing away from them as well as he could, and I and my under sheriff was getting to him as fast as we could. Barry got to him first, got hold of Chapman and kept backing with him towards the stairway or roadway leading to the tramway, and ordered the crowd at the top of his voice to stop, at the same time gesticulating and swinging his arms. Barry at last got

Chapman on the tramway. I and my under sheriff got to the roadway, and, with the assistance of some men in the crowd whom I did not know, succeeded in keeping the crowd from going on the tramway, and then it quieted down.

"The crowd then left Barnard's and went to Cameron & Merrell's mill and Green, Ring & Co.'s mill, but the mills had been closed before the men arrived.

"They (the crowd) then came back to the bridge and went across to South Saginaw. I did not follow. Don't think the full crowd went to upper mills.

"I telegraphed the Governor Sunday, asking for the two home companies of troops and that two other companies be held in readiness if wanted.

"Monday I deputized 70 deputy sheriffs, some from among the working-men; no mill men; might be one or two. The men deputized were men who offered themselves.

"The Governor responded at once, and the captains of the home companies—one reported that night and the other the next morning. Capt. Trask's company (Saginaw City) had been ordered under arms Saturday night by the Governor, at the request of the mayor, unknown to me. On Sunday I was sent for to go to Mayor Benjamin's place of business. I did so. The mayors of East Saginaw and Saginaw, one police commissioner of East Saginaw and some of the mill owners of Saginaw City were there. They requested me to make a requisition for four companies on the spot. Some thought they should bring a Gatling gun and preferred the Lansing company. I refused to do it, as I did not see any necessity for it. I told them I would order the East Saginaw company to be in readiness at their armory, and would ask the Governor to have two more companies in readiness. They then asked me to change the order they had made for Capt. Trask's company, so that all the orders or requisitions would come from me, and I did so. I had nothing to do with the Pinkerton men."

The following statement, made by Mayor Benjamin, of Saginaw City, will show how the Pinkerton men were ordered:

STATEMENT OF HON. CHAS. L. BENJAMIN, MAYOR OF SAGINAW CITY.

"We held our first meeting of city and county authorities Friday, July 10. Present: the two mayors, police commissioners and citizens generally. The meeting was held at East Saginaw. When the meeting was over, the commissioners, Mayor Estabrook, Sheriff McIntyre and myself staid at police headquarters and sent for Mr. Barry. Both Barry and Blinn came. Barry was asked what he and the crowd intended to do. He said he had invited these men to come from Bay City and that they were going to the different mills and *invite* the men to quit work and ask for ten hours. If any refused to quit they would leave them alone and go on. That was all they intended to do. Mr. Barry said, in effect, that he would hold his liberty and his life responsible for the peaceable action of the men. We had issued a proclamation; Barry said there was no need of it—there would be no demonstrations, violent or ungentlemanly conduct. We did not think the crowd would go to the mills in a mass. Mr. Barry gave us to understand that a committee would visit each mill, and if the men did not want to quit they would leave them.

"Before the men got to Barnard's mill Mr. Barnard served a notice on me, stating that the crowd was coming and notifying me he should hold the city responsible for any damage, etc. I did not see the attack on Mr. Chapman.

"Very few of our mill men were in the rowd, but the stricking 'dockwal-lopers' were there.

"I telegraphed the Governor that the situation was critical and asked for aid, July 11. At 6:40 P. M. a message was received from him saying: 'Call upon Capt. Trask's company if needed.'

"Sunday morning there was another meeting of the business men, police commissioners of East Saginaw and the mayors of the two cities. We sent for Sheriff McIntyre and asked him to call for four companies of troops; he refused to do it. We then compromised with the sheriff by having him order out the two local companies and request the Governor to hold two companies in readiness. The meeting was unanimously in favor of hiring outside help. I telegraphed Pinkerton to see if he could send fifty men. The East Saginaw people wanted me to send for fifty men for them, so I changed the order and sent for one hundred men."

The following expressions and opinions of workingmen, mill owners, and business men are but a portion of those gathered by the Commissioner, but give all the variety of thought expressed, without repeating opinions:

#### OPINIONS OF WORKINGMEN.

No. 1. "Think ten hours enough for a day's work. Did not quit work until mill was stopped by crowd."

No. 2. "We were driven out of the mills; did not want to stop work."

No. 3. "My boss shut down before the strikers got to us; he was afraid of damage to the mill. Think ten hours enough for a day's work, but did not want to quit work."

No. 4. "I am getting \$3.00 a day and am satisfied, but feel that ten hours is enough for a day's work. Expected when law went into force mills would run ten hours. Would not dare to go to work until several mills started; would be called 'rat,' 'scab,' etc., and my family would find it unpleasant."

No. 5. "No, sir, I would not go to work until a good many others did. I am afraid of being knocked down after day's work."

No. 6. "Have been threatened that if I don't hold out I will be marked."

No. 7. "Am willing to go to work and to meet my bosses, but want ten hours for a day's work; am willing to concede something."

No. 8. "Believe if the men who talked this strike up would quit and leave us alone, we would be able to go to work very soon."

No. 9. "Have not lived fifty years without learning some things; among them patience. But this being forced into idleness is trying to my patience; it is cussed."

No. 10. "Think it all right for each mill to settle its troubles with its own men." [This was a most common remark by very many men.—Commissioner.]

No. 11. "Many mill workmen are now in earnest for the ten hours at same pay who had no desire to strike, but were forced to do so by a large crowd, armed with clubs, coming into the mills and ordering the sawyers not to cut another board. The crowd appeared to be all sober, but overran the mill and made all quit."

No. 12. "Think now the men are out they will hang for ten hours' work at eleven hours' pay. Wages were cut down on all hands last spring, and the men

did not object. Am married; receive \$1.75 per day; received \$1.87½ per day last year at same work (assistant engineer). Cost of living about same as last year. Am still at work and under pay. Think if there had been no cut in wages last spring there would have been no strike."

No. 13. Yard foreman. "Don't know whether the men would make any concessions from their demand for ten hours and old wages. Lowest wages paid in this mill, \$1.50 per day. No uniform rate of wages for all the mills could be fixed, owing to the difference in the construction of the mills and their facilities for doing work."

No. 14. Group of four (one speaking, others assenting). "The days begin to get long. We have stayed here at the house all the time since the strike began; have not been with any crowd; our mill was closed before the strikers arrived; our men were at work for less pay by from twenty-five to fifty cents per day than last year for same work. Think it is the loafers and idlers, who don't care whether the mills ever run and would not work in them if they did, who are doing the mischief."

No. 15. Another group (men who work on the boom at the mill). "No work for boom men until mills start again. Think the men of Saginaw did not want to strike, but now that they were out they will stick for ten hours and same pay as they had been receiving. Would not dare to go to work except at ten hours and old pay. Not afraid of harm while at mill, but afraid nights and afterwards afraid for family. Did not go with the strikers at all; care nothing about either the troops or Pinkerton men being here; don't think much of the latter."

In several different instances, and at different mills, the men were questioned as to why they staid about the mills. The answers showed that the men considered more of danger from fire than when the mills were in activity, from carelessness of smoking or other causes, and they felt an interest in protecting the property. This position of the men led many times to an inquiry as to the kind of men their employers were, their disposition towards employé's, etc. Invariably came the reply, "Best on the river;" but when asked the disposition of the proprietors of the mill above or below them, the answer was quite as ready, "He's a mean one." It was evident that the mill owners had the friendship of their own men and had many faults in the eyes of the men of other mills.

In conversation with mill owners, it was an exception to find one who had not a kind feeling for his men. Said one: "Sir, I have a large mill interest; I think I feed 1,500 mouths; I have a little money in bank; I am perfectly willing to go to my men and say, 'Here, take all my property and look after it for me, I am going away.' When I should return, sir, the report of these men would show a faithful stewardship. Why, sir, I pay all I can at present price of lumber; my men know it, and, but for political demagogues, no trouble would occur in this valley."

A few brief statements of mill owners are given as follows:—

No. 1. "My men quit work without expressing themselves as dissatisfied or asking for any changes of existing rules, and now, if they go to work again this year, it must be at old hours and at old pay. I like my men but will

never submit to have any committee or anybody else dictate how long my mill shall run or what wages I shall pay."

No. 2. "I think now this strike had been talked up a long time before it started, and it was precipitated by a lot of idlers and men not employed in the mills."

No. 3. "Have always run my own business and always will. To prevent my mill being shut by a mob, I had it closed before they arrived. Have tried hard to have my men come and talk with me and say what they wanted, but none have come. Have paid off all my hands and don't care whether the mill starts again this season or not."

No. 4. "Am employing about 125 men. Of this number only seven were working for \$1.25 per day, the rest were receiving from \$1.37½ to \$1.50 per day, the average being \$1.74. The cut in men's wages this spring made our pay roll \$30.00 per day less than last year. We receive five shillings less per 1,000 feet for sawing this year than last; we average 166,000 feet per day, so that we receive \$103.50 less for our work per day than last year. This strike can never be settled until political demagogues, acting as leaders, are sent to the rear."

No. 5. "We saw by the thousand. In 1879 and 1880 we received \$2.00 per thousand for sawing. In 1881 and 1882 we received \$2.75 per thousand. For 1885 we have contracted for only 6,000,000 feet at \$2.00 per thousand, other mills sawing for \$1.75 per thousand. Our capacity is 16,000,000 feet for the season. We employ 90 to 100 men. We made no reduction of wages from 1881 to close of 1884. The average wages in 1884 were \$1.98 per day, in 1885 they are \$1.72 per day. From 1881 to present year the decrease in profits has been fifty per cent; in wages the decrease has been sixteen per cent."

No. 6. "We were in the habit of paying our men once a month. On the 18th of June they sent a petition to our office asking to be paid once in two weeks, and giving as a reason that having the money they could buy cheaper from the huckster's wagons. We readily saw the point, and though it made much more work in our office we willingly agreed to comply with their request, but told them as the first half of the month had more than gone by, we would put the system in operation next month; this appeared to be satisfactory.

"When the crowd reached our mill it was running and I don't think the men wanted to strike, but they were forced out—not by personal violence, but by calling them names, telling them to quit, etc. At a meeting of our mill proprietors a committee of three, including myself, was appointed to meet a delegation of the strikers and see if we could not effect a compromise.

"We met them and told them we had come to see if we could not effect a compromise. One, a man who has no regular occupation, but sometimes rents lath mills and hires others to do the work, got up and moved to adjourn; he said they were not there for a compromise, that they had published their resolutions and were going to stand by them. He made an exciting speech; charged the mill owners with robbing their employes, keeping them so poor they could not send their children to school, and with getting rich out of their very life's blood.

"Better counsel prevailed and I was permitted to reply to him, but no good could come of argument, as the first speaker had excited the men too much. We could have arranged matters but for two or three agitators (not workmen). Our stablemen were ordered out, and if it had not been for the Pinkerton men our kitchen girls would have been driven out.



"Our foreman, who has been with us ten years, and in that time has made half as much money as we have, having a very large farm in good shape, came near losing his head through threats, etc. His salary is \$1,200 per year.

"We employ regularly 100 to 115 men; they have not come near us to state their grievance or say what they want. When our committee was talking with one of the Knights of Labor committee I asked a prominent member (not one who ever does a day's work for wages) if we should start the mills at 11 hours as before, if the Knights of Labor would protect our men and property. He said he had no authority to answer that question, but if we would start at 10 hours with 11 hours' pay the Knights of Labor would protect us. Politics is at the bottom of this; all political parties are catering to a mob for political purposes.

"We should have been in the hands of a mob but for the prompt action of our sheriff. The same prominent member of the Knights of Labor committee is a politician; he tells the men they will be taken care of for sixty days. We had to have the Pinkerton men; could not have done without them."

No. 7. Bay City. "I do not think there would have been any need of calling for 'Pinkerton men' if this had been a regular strike, for our regular workingmen would not destroy our property. But when a howling mob was made up of the worst idle bummers of our cities and they were led or egged on by agitators and political demagogues, none of whom ever pretended to earn wages, and some of whom were defeated candidates for office still hoping to 'get there' by labor votes (which they won't get), I say when we saw such a crowd we were afraid that under excitement our mills might be burned, and so we called for the Pinkertons. If our sheriff had been sustained by other authorities we could have got along without the Pinkertons."

Statements from business men were harder to get than any others. A free expression was: "We are afraid of a 'boycott' if we should be known as expressing what we feel." While some told us that they would not say anything pertaining to the strike further than the whole blame for its origin and continuance could be placed upon "discarded politicians." We give two or three statements in full as secured from business men.

No. 1. "The whole bottom of this strike is politics, and, from soon after its start, has been run by a lot of political demagogues for their own purposes. The men who keep the thing going live here in Bay City; they are not mill men and have no business in the matter.

"The strike was very ill advised and was started by demagogues, but the mill workmen, after being obliged to stop work, want the ten hours before they begin work again. I think a little concession ought to be made by both sides."

No. 2. Bay City. "I believe no concerted plan had been considered by workingmen before the strike took place, but that the start was unpremeditated and at once taken hold of by agitators who advised a continuance and growth until all mills in the valley should be closed. I believe that an adjustment of any differences between employer and employé would be brought about at once but for the position of certain men who claim to be Knights of Labor, but are publicly known as politicians and in no sense as workingmen.

"The responsibility for the great loss daily falling upon our citizens, of all classes, must rest upon these men who are advising the workingmen to hold out."

No. 3. "The first day I recognized every 'bum' and every 'drunk' that I have seen around Bay City for years in the crowd; they were men who never work and would not work if offered five dollars per day.

"The next day there were some mill workmen in the crowd, men from the mills not running. I heard this strike talked of as possible as early as June 1. Many men thought the ten-hour law went into effect July 1. Some were told to the contrary, but would not believe it.

"The great mistake was when our mayor released the men who had been arrested, and by so doing, in effect, told the crowd that a mistake had been made in arresting the men, or that the crowd could run things to suit themselves. If Chief of Police Murphy had been properly backed he would have quelled this trouble, although he ought not to have struck one of the men after he was arrested. He is a good officer.

"I am in sympathy with the strike to the extent that I think ten hours long enough to work in these saw-mills, but I am opposed to the way the strike was inaugurated and the way it has been and is now being run."

The foregoing statements were all taken from persons who had, until this time, never been personally met by the Commissioner; no knowledge of their views relative to the strike was had by him prior to his call for their statements. We believe them to most fairly express the sentiments of the different classes represented.

A speech made by Representative Barry, occupying one hour and thirty minutes and to an audience of between 300 and 400 people, one-half of whom were working people, in a park in East Saginaw was most attentively listened to by the Commissioner, and a stenographic report was also taken at his instance.

We had noticed the almost entire absence of drunkenness in the valley during the week of our stay. In fact, it was said to us by authorities that there was less of drunkenness among the idlers than usual. There were two reasons in our mind for this state of sobriety during a period of such extended idleness. The one, that the workmen of the mills now closed were nearly all about their homes or mills and not inclined to any dissipation; the other, that the idlers (regulars) had come within the sound of Mr. Barry's voice, with others, and had been influenced by his strong appeal to "leave intoxicating drink alone during the strike." It was our privilege to hear Mr. Barry make such an appeal, and we believe it had weight with some of his hearers, as we believe did other subject matter of his talk. Mr. Barry, at the time of this speech, stated that the mill owners were all notified in the spring of this year of the desire of the employes for a reduction of working hours to ten per day. This statement demanded an investigation, for if such notification had been made, both employer and employe had good reason to feel that a disturbed condition of sentiment prevailed as to hours of labor. We, therefore, made a thorough enquiry, asking mill owners and mill men in Bay City and East Saginaw if any such notification or demand had been made. A negative answer was given

in every instance. In Saginaw City one mill owner was found who said "he thought that in the spring he heard some of his men talking of the matter, but never heard it spoken of among mill owners." Neither could we find among mill owners in Saginaw City any copy of a circular note which, it was said, had been sent to them by employés. Believing, however, that some action had been taken by men in South Saginaw and Saginaw City, we asked the coöperation of a special agent in securing a copy of the circular, which we give below. There is no evidence that any great publicity was given to this circular, though Mr. Barry probably thought there had been.

[COPY OF CIRCULAR.]

*Saginaw City, May 6, 1885.*

DEAR SIR:

At a joint meeting of the labor organizations of Saginaw City and South Saginaw, a committee of seven was appointed to confer with a like committee of mill owners in regard to hours to be worked in the mills. We believe that the hours of labor in the mills should be reduced to 10 per day. We further believe that it will be better for mill owners, as well as to the workingmen; and for this reason we wish to meet the owners of mills on fair and impartial footing, and endeavour to come to a satisfactory understanding. We therefore request that the mill owners of Saginaw City and South Saginaw meet and appoint a committee of seven to confer with us. Please name the place of meeting, and at any time within two weeks from date of this request. Any place you may please to name in Saginaw City for the meeting of the Committee will satisfy us.

The K. of L. Hall, in Beach & Andre Block, Court street, can be had free of charge, on any afternoon.

Yours Respectfully,

ABBOT E. LAWRENCE,  
*Chairman Workingmen's Committee.*

### EFFORTS TO RESUME WORK.

While the work of the investigation of the origin and continuance of this strike was earnestly prosecuted by the Commissioner, he also made strenuous efforts to bring about a speedy resumption of the industries found idle because of the strike.

In such efforts but two classes seemed to be properly interested—the employer and the employé. While a third party, the mercantile interests, were materially interested, it required an adjustment of differences between the first two classes before all other interests could be benefited.

In the efforts to bring the employer and employé together upon a basis of equity, the fact that "ten hours" for a day's work was a right and reasonable request, one in full harmony with the betterment and advancement in social condition of the employé, was positively argued by the Commissioner. In connection with the making of "ten hours" a day's work in the mills, he also asked that no cut in wages upon those receiving \$1.50 per day, or less, should be made. He asked that each mill owner should call his employés together, and, treating them as his business family, start out upon the above basis and make such further arrangements as justice and equity demanded, believing that a resumption of work would be the result. While a few mill owners

objected to any arrangement that should bring about a resumption of work except upon the same basis in vogue when the mills stopped, a very large majority were in favor of our proposition, or else of having a committee of mill owners and mill workmen jointly adopt a plan upon which all mills should resume.

The few referred to argued that their mills were closed by a mob, and that to start up again upon any basis of hours and wages other than those in force when closed was an acknowledgment of the right of outside forces to stop industry at any time. In fact nearly all mill owners expressed similar sentiment, while all, save those sawing upon contract, claimed that at no time in years were they so willing to have their mills remain closed as a pecuniary benefit to themselves.

But, outside of the few, the willingness to end the loss to wage earners of their wages and to revive the business of the valley made them willing to attempt a resumption upon the basis referred to.

The employes were talked with, and aside from a few who were getting the highest wages, a wish to arrange with their employers was expressed. Several mill owners attempted thus to meet their men, but a few only, in most instances, came at the invitation.

An investigation of the cause for non-attendance of the mill workmen at meetings with their employers led to the discovery that advice was being given "to hold out," that "they would be cared for a long time" and in the end the demand of "ten hours and old wages" would be fully complied with. A few mills made arrangements with their employes and resumed work, as will be seen in the statement showing the "number of days mills were idle." Others resumed and, running one or two days, again closed for lack of workmen, the men having been advised to "quit and hold out."

With this apparent failure of our efforts came the feeling to the mill owners that they had done all that could be expected of them, and now their mills could remain idle. Still determined to bring about a resumption of labor if possible, the mill owners were asked to name a committee of five to meet an equal number of workingmen and an equal number of merchants in Bay City. The meeting was arranged with the understanding on the part of the employers that they would meet only workingmen and business men; no committee of any *association* made up of others than workingmen would they confer with. The meeting was called for three o'clock, July 23. The mill owners and business men were on hand, awaiting until four o'clock brought the information that the workingmen were advised not to appoint a special committee, but that, unless the mill owners would meet a committee already appointed, no meeting would be held. An adjournment *sine die* was at once made, with the declaration by the mill owners that they "would never meet a committee of politicians as representatives of the workingmen when there were no workingmen among them, to discuss matters that interested the workingmen only."

Efforts for a resumption of work of all the mills had failed. The wage-earner was being kept from earning his daily wage by a class of "political demagogues." This was not the work of any political party as a party, for the better men of all parties deprecated the efforts to block the wheels of industry. It was the work of men identified (at some one time at least) with some one of the several political parties; men who sought office; men who had not the full respect of their several parties, and had at times failed to be elected. They were not workingmen; they earned no wages; they joined the Knights of Labor for their own political purpose; they were of the class described by Grand Master Workman T. V. Powderly of the Knights of Labor, who, speaking of the classes excluded from the order, names "professional politicians," and says "they sometimes get in, but when discovered are ejected." These men who assumed to be the friends of the mill workingmen, in Bay City especially, and advised a continuance of idleness, knowing that the pecuniary loss to the men and the whole valley had assumed fearful proportions, had "got in" to the Knights of Labor order and had not been "ejected." The workingmen listened to their sophistry of argument, and being mentally influenced by the daily depression of mind, as they saw no wages for daily work as formerly, were led to feel that "truly these are our friends." The awakening to the truth of the real object actuating those politicians came at an expensively late hour to the workingmen, but we believe the intelligence of the employés of the Saginaw Valley, as well as of the State at large, will cause them to see that men who advise a continuance of daily loss of wages, rather than adjust their differences with their employers in honest conference, are "agitators" and "political demagogues," having nothing to lose, but are desirous of gaining the favor and votes of honest men of toil, even though they financially ruin the objects of their prey in the attempt.

With the information gained and given in the preceding pages, we give, as we believe, a reasonable conclusion that the responsibility for the long continuance of enforced idleness in the Saginaw Valley this summer does not lay with the mill workingmen nor the mill owners, nor with the Knights of Labor as an order, but does attach directly to the few "professional politicians" who, in the guise of Knights of Labor, were using their place in the order in direct violation of the principles announced by its greatest authority.

#### THE RESULT.

In giving the result or effect of the "Saginaw strike" upon the people living in the valley, we show in part the number of days the mills were closed, the loss of money in wages to the employés, the effect financially upon the mill owners, and the probable effect upon the consumers of the products of the mills and salt blocks.

## NUMBER OF DAYS MILLS WERE CLOSED.

There were three classes of industries closed between July 6 and Sept. 1, 1885—lumber, shingles and salt. Of the lumber mills several sawed by the thousand feet upon contract, others owned their own logs, while very many of each had salt blocks attached.

*Shingle Mills.*—There were 17 of these mills closed.

Three (3) were closed 30 days each.

Two (2) were closed 6 days each.

Twelve (12) were closed respectively, 3, 5, 9, 10, 14, 15, 21, 24½, 25, 27, 30½, 44 days.

|   |     |
|---|-----|
| Total number of days closed, 17 mills ..... | 330 |
|---|-----|

|                                     |     |
|-------------------------------------|-----|
| Average number of days closed ..... | 19½ |
|-------------------------------------|-----|

|  |            |
|--|------------|
| Number of shingles uncut because of strike ..... | 25,739,000 |
|--|------------|

*Lumber Mills.*—There were 61 of these mills closed.

Six (6) were closed 44 days each.

Five (5) were closed 30 days each.

Five (5) were closed 31 days each.

Three (3) were closed 26 days each.

Three (3) were closed 46 days each.

Three (3) were closed 48 days each.

Two (2) were closed 25 days each.

Two (2) were closed 27 days each.

Two (2) were closed 33 days each.

Two (2) were closed 36 days each.

Two (2) were closed 42 days each.

Two (2) were closed 45 days each.

Twenty-four (24) were closed respectively, 2½, 5, 6, 8½, 9, 15, 16½, 17, 20, 21, 21½, 23, 30½, 32, 32½, 35, 41, 42½, 43, 43½, 44½, 45½, 50.

|                                   |        |
|-----------------------------------|--------|
| Total days closed, 61 mills ..... | 1,965½ |
|-----------------------------------|--------|

|                                     |     |
|-------------------------------------|-----|
| Average number of days closed ..... | 32½ |
|-------------------------------------|-----|

|   |            |
|---|------------|
| Total daily wages paid in 78 mills at time of closing ..... | \$9,864.64 |
|---|------------|

|   |              |
|---|--------------|
| Total loss of wages in 78 mills during strike ..... | \$302,818.90 |
|---|--------------|

|   |             |
|---|-------------|
| Amount of lumber uncut because of strike (feet) ..... | 191,971,000 |
|---|-------------|

*Boom Company.*—This company was closed 43 days.

|  |          |
|--|----------|
| Daily wages paid by boom company ..... | \$825.00 |
|--|----------|

|  |             |
|--|-------------|
| Total loss of wages, 43 days of strike ..... | \$35,475.00 |
|--|-------------|

|   |             |
|---|-------------|
| Estimated cost in wages of putting total unmanufactured product of the mills upon vessels or cars ..... | \$47,320.57 |
|---|-------------|

|                                    |              |
|------------------------------------|--------------|
| Grand total of loss in wages ..... | \$385,614.47 |
|------------------------------------|--------------|

Of the mills and companies addressed, one refused to answer our questions and three were closing up their affairs.

## EFFECT UPON MILL OWNERS.

It is impossible to give total figures in speaking of the effect of the strike upon the mill owners. It was not a financial loss. As was stated by them in interviews, the time for their works to be idle was opportune. The result, we believe, proved their words to be correct. Lumber and salt both advanced quite materially in Ohio and Michigan. Buyers went to the Saginaw Valley instead of receiving visits from Saginaw representatives. In answer to com-

munications addressed to some of the most prominent mill owners, asking the effect of the strike upon the manufacturers, replies were received, of which we give one or two showing the sentiment expressed in all.

No. 1 writes Nov. 4, 1885: "The prices for common grades of pine at the commencement of the strike was \$7.00 for culls, \$14.00 for common, \$35.00 for uppers. At the termination of the strike I sold *green* stock at fifty cents per thousand advance, and *dry* at \$1.00, and to day I can get an advance of \$2.00 per thousand on common stock, and better grades \$5.00 per thousand. Salt was worth, July 1, sixty cents, it is now held here at eighty cents per barrel. It is my opinion that without the strike there would have been a drop of fifty cents to one dollar per thousand on lumber."

No. 2 writes Nov. 3, 1885: "The average price of salt during month of June was sixty-two cents per bbl., for the month of August sixty cents, and the average price to day is seventy cents per bbl. There was about 125,000 bbls. less manufactured than there would have been had there been no strike. The prices would show 62 cents for July, 60 cents for Sept. 1, 70 cents for Nov. 1."

No. 3 writes Nov. 3, 1885: "I think that the delay in manufacturing caused by the strike lessened the season's product for the Saginaw Valley, thereby preventing a decline in prices on many grades of lumber, particularly lower grades. In that way it helped the owners of logs and lumber. I do not believe that the owners of logs, lumber and salt in the valley suffered real loss in consequence of the delay, but am of opinion that it was really a benefit."

By the foregoing statements of manufacturers, it is fair to believe that the effect of the strike was to them a large financial gain.

To the consumers of the products of the mills and salt blocks the strike was the cause of an increase in expenses, not easily computed because of its magnitude. The increase in prices of lumber and salt affected a wide area of country, and in no way can be confined to the amount not manufactured (because of strike) but covers stocks already in the markets anticipating a scarcity of supply.

#### WAGES PAID AT TIME OF STRIKE.

That this Bureau might ascertain the exact wages paid by the mills closed at the time the strike was inaugurated, an agent was given the work in hand, with instructions to secure his information from the pay rolls of June, 1885, if possible so to do. He met with most favorable assistance from the proprietors, free access to the books being accorded, save in three instances where positive refusal prevented the securing of any information.

The following named mill owners reported that they were not affected by the strike, not having started their mills: Backus & Binder, Francis Kelley, Charles E. Lee, Keystone Lumber & Salt Co., Saginaw Manufacturing Co.

The visit of the agent to the mill of Messrs. Whitney & Batchelor, at Zilwaukee, discovered the absence from home of the proprietors; blanks and a request that they be filled were left with the book-keeper. These blanks were

sent to the Bureau properly filled out, but arrived too late to be used in this report. The firms refusing to give information were F. E. Bradley, Green & Stevens and William Peters.

The result of the canvass is embodied in tables number 1, 2, 3, 4, 5 and 6 and summarized in table number 7. These tables have been prepared with a great deal of care from the most authentic sources, and will repay a careful examination.

**TABLE NUMBER 1.—Showing the names of the Mill-owners; the Number of Men; Number of Boys, and the Total Number of Employees on July 1, 1885, of 77 Mills and 58 Salt Blocks affected by the Strike in the Saginaw Valley.**

| Names of Mill Owners.     | No. of Employés. |       |        | Names of Mill Owners.         | No. of Employés. |       |        |
|---------------------------|------------------|-------|--------|-------------------------------|------------------|-------|--------|
|                           | Men.             | Boys. | Total. |                               | Men.             | Boys. | Total. |
| Andrews, E.....           | 18               | ..... | 18     | Hall, J. R.....               | 140              | ..... | 140    |
| Barnard, N. & A., Co..... | 137              | 7     | 144    | Hall, S. A.....               | 14               | 1     | 15     |
| Bliss, A. T.....          | 64               | 23    | 87     | Hamilton, McClure & Co.....   | 94               | 27    | 121    |
| Bliss, A. T., & Bro.....  | 105              | 13    | 118    | Hargrave & Son.....           | 47               | 6     | 53     |
| Birdsall & Barker.....    | 258              | 11    | 269    | Hargrave Shingle Mill Co..... | 73               | ..... | 73     |
| Bradley, N. B. & Son..... | 111              | 10    | 121    | Hitchcock, J. R.....          | 31               | 4     | 35     |
| Brand & Hardin.....       | 11               | 1     | 12     | Holland, N.....               | 60               | 10    | 70     |
| Brucker, F. & L.....      | 12               | 1     | 13     | Hotchkiss, L. L., & Co.....   | 74               | 16    | 90     |
| Burnham & Still.....      | 26               | 7     | 33     | Jerome, T., & Co.....         | 55               | 3     | 58     |
| Butman & Rust.....        | 58               | 4     | 62     | Laderach Bros.....            | 32               | 6     | 38     |
| Cameron & Merrill.....    | 68               | 16    | 84     | Lewis, C. E.....              | 51               | 6     | 57     |
| Camp, A. D.....           | 23               | 1     | 24     | Malone & Co.....              | 76               | 30    | 106    |
| Carrier, Heath & Co.....  | 57               | 5     | 62     | McEwan Bros. & Co.....        | 53               | 9     | 62     |
| Chapin, D. S.....         | 26               | 1     | 27     | McLean, Son & Co.....         | 72               | 7     | 79     |
| Conderman & Hogan.....    | 22               | 5     | 27     | McLeod, D., & Son.....        | 15               | ..... | 15     |
| Culver, H. H.....         | 17               | 3     | 20     | Melcher & Nerriter.....       | 31               | ..... | 31     |
| Dolson & Chapin.....      | 88               | 6     | 94     | Merrill, C., & Co.....        | 99               | 14    | 113    |
| Eaton, Potter & Co.....   | 75               | 4     | 79     | Miller Bros.....              | 58               | 3     | 61     |
| Eddy, Avery & Eddy.....   | 57               | ..... | 57     | Miller & Lewis.....           | 68               | 15    | 83     |
| Eddy Bros. & Co.....      | 76               | 20    | 96     | Murphy & Dorr.....            | 83               | 6     | 89     |
| Eddy, C. K. & Son.....    | 80               | 17    | 97     | Myers, Geo. C.....            | 30               | 5     | 35     |
| Folsom & Arnold.....      | 95               | 11    | 106    | Owen, J. G.....               | 65               | 11    | 76     |
| Gates, S. G. M.....       | 35               | 20    | 55     | Patterson, James.....         | 25               | ..... | 25     |
| Gebhart & Esterbrook..... | 76               | ..... | 76     | Pearson, J. H., & Son.....    | 83               | 8     | 91     |
| Gould, E. F.....          | 46               | 6     | 52     | Pitts & Cranage.....          | 131              | 10    | 141    |
| Grant, C. L., & Co.....   | 27               | 6     | 33     | Ring & Stevens.....           | 24               | 1     | 25     |
| Green, Ring & Co.....     | 93               | 10    | 103    | Rorison & Langford.....       | 24               | ..... | 24     |
| Hall, E.....              | 82               | 5     | 87     | Rouse, W. B.....              | 30               | 5     | 35     |



TABLE NO. 1.—Continued.

| Names of Mill Owners.         | No. of Employés. |       |        | Names of Mill Owners.         | No. of Employés. |       |        |
|-------------------------------|------------------|-------|--------|-------------------------------|------------------|-------|--------|
|                               | Men.             | Boys. | Total. |                               | Men.             | Boys. | Total. |
| Rust Bros. & Co.....          | 76               | 8     | 84     | Ten Eyck, C. & E.....         | 40               | 9     | 49     |
| Rust Bros. & Co.....          | 83               | 11    | 94     | Tyler, S. W., & Son.....      | 56               | 3     | 59     |
| Rust, Eaton & Co.....         | 67               | 6     | 73     | Warner & Eastman.....         | 76               | 9     | 85     |
| Sage, H. W., & Co.....        | 163              | 8     | 171    | Webber, Wm. L.....            | 68               | 15    | 83     |
| Saginaw Lumber & Salt Co..... | 69               | 4     | 73     | Welch, J.....                 | 60               |       | 60     |
| Sample & Camp.....            | 47               | 14    | 61     | Whittier & Co.....            | 45               | 3     | 48     |
| Sanborn, Hill & Beard.....    | 39               |       | 39     | Wiggins, Cooper & Co.....     | 38               | 5     | 43     |
| Smalleys & Co.....            | 25               | 4     | 29     | Williams, G. F., & Bro.....   | 76               | 2     | 78     |
| Smith Bros. & Co.....         | 81               | 7     | 88     | Wright, A. W., Lumber Co..... | 238              | 18    | 256    |
| Stevens & LaDue.....          | 93               | 8     | 101    | Wylie Bros.....               | 43               | 6     | 49     |
| Stillman, W. B.....           | 27               | 7     | 34     |                               |                  |       |        |
| Total.....                    |                  |       |        |                               | 4,991            | 563   | 5,554  |

TABLE NO. 2.—Showing the Number at each Occupation; the Number at each given rate of Wages; the Total Number and Average Wages at each Occupation of the Men employed in 77 Saw and Shingle Mills of the Saginaw Valley on July 1, 1885.

| Occupation.                | Number. | Wages per day. | Occupation.                | Number. | Wages per day. |
|----------------------------|---------|----------------|----------------------------|---------|----------------|
| Barnmen .....              | 2       | \$1 37½        | Bolt carriers.....         | 1       | \$1 15         |
| “ .....                    | 3       | 1 50           | “ “ .....                  | 2       | 1 50           |
| “ .....                    | 1       | 1 60           | “ “ .....                  | 1       | 1 75           |
| “ .....                    | 4       | 2 00           |                            |         |                |
| No. and average wages..... | 10      | \$1 68½        | No. and average wages..... | 4       | \$1 47½        |
| Blacksmiths.....           | 1       | \$1 37½        | Bolters .....              | 2       | \$1 60         |
| “ .....                    | 1       | 1 40           | “ .....                    | 15      | 1 75           |
| “ .....                    | 3       | 1 50           | “ .....                    | 2       | 1 87½          |
| “ .....                    | 1       | 1 62½          | “ .....                    | 4       | 2 00           |
| “ .....                    | 9       | 1 75           | “ .....                    | 2       | 2 25           |
| “ .....                    | 2       | 2 00           | “ .....                    | 2       | 2 50           |
| “ .....                    | 1       | 2 25           | No. and average wages..... | 27      | \$1 87+        |
| “ .....                    | 1       | 2 50           |                            |         |                |
| “ .....                    | 3       | 3 00           | Boommen.....               | 2       | \$1 25         |
| No. and average wages..... | 22      | \$1 02+        | “ .....                    | 8       | 1 37½          |
|                            |         |                | “ .....                    | 2       | 1 40           |

TABLE NO. 2.—*Continued.*

| Occupation.                      | Number.    | Wages per day. | Occupation.                      | Number.    | Wages per day. |
|----------------------------------|------------|----------------|----------------------------------|------------|----------------|
| <b>Boommnen—Continued:</b>       |            |                | <b>Circular clearers.....</b>    | <b>4</b>   | <b>\$1 25</b>  |
| “ .....                          | 42         | \$1 50         | “ “ .....                        | 13         | 1 37½          |
| “ .....                          | 31         | 1 62½          | “ “ .....                        | 4          | 1 40           |
| “ .....                          | 34         | 1 75           | “ “ .....                        | 28         | 1 50           |
| “ .....                          | 21         | 2 00           | “ “ .....                        | 7          | 1 62½          |
| “ .....                          | 8          | 2 25           | “ “ .....                        | 15         | 1 75           |
| “ .....                          | 2          | 2 50           | “ “ .....                        | 1          | 1 87½          |
| <b>No. and average wages....</b> | <b>150</b> | <b>\$1 60+</b> | “ “ .....                        | 7          | 2 00           |
| <b>Car-loaders.....</b>          | <b>8</b>   | <b>\$1 25</b>  | “ “ .....                        | 2          | 2 50           |
| “ .....                          | 14         | 1 37½          | <b>No. and average wages....</b> | <b>81</b>  | <b>\$1 58+</b> |
| “ .....                          | 15         | 1 50           | <b>Cull pilers.....</b>          | <b>2</b>   | <b>\$1 12½</b> |
| “ .....                          | 3          | 1 62½          | <b>Edgers.....</b>               | <b>13</b>  | <b>\$1 50</b>  |
| “ .....                          | 3          | 1 75           | “ .....                          | 1          | 1 60           |
| “ .....                          | 5          | 2 00           | “ .....                          | 7          | 1 62½          |
| <b>No. and average wages....</b> | <b>48</b>  | <b>\$1 49+</b> | “ .....                          | 16         | 1 75           |
| <b>Carpenters .....</b>          | <b>4</b>   | <b>\$1 50</b>  | “ .....                          | 8          | 1 87½          |
| “ .....                          | 4          | 1 75           | “ .....                          | 3          | 1 90           |
| “ .....                          | 3          | 2 00           | “ .....                          | 31         | 2 00           |
| “ .....                          | 3          | 2 25           | “ .....                          | 7          | 2 12½          |
| <b>No. and average wages....</b> | <b>14</b>  | <b>\$1 83+</b> | “ .....                          | 25         | 2 25           |
| <b>Carriage men.....</b>         | <b>1</b>   | <b>\$1 50</b>  | “ .....                          | 4          | 2 50           |
| “ “ .....                        | 1          | 1 60           | “ .....                          | 4          | 2 75           |
| “ “ .....                        | 1          | 2 25           | <b>No. and average wages....</b> | <b>119</b> | <b>\$1 97+</b> |
| “ “ .....                        | 1          | 2 50           | <b>Edger clearers .....</b>      | <b>1</b>   | <b>\$1 15</b>  |
| “ “ .....                        | 1          | 3 00           | “ “ .....                        | 13         | 1 37½          |
| <b>No. and average wages....</b> | <b>5</b>   | <b>\$2 17</b>  | “ “ .....                        | 13         | 1 50           |
| <b>Cart drivers.....</b>         | <b>1</b>   | <b>\$1 12½</b> | “ “ .....                        | 2          | 1 60           |
| “ “ .....                        | 51         | 1 25           | “ “ .....                        | 7          | 1 62½          |
| “ “ .....                        | 23         | 1 37½          | “ “ .....                        | 5          | 1 75           |
| “ “ .....                        | 26         | 1 50           | “ “ .....                        | 1          | 2 00           |
| “ “ .....                        | 1          | 1 75           | <b>No. and average wages....</b> | <b>42</b>  | <b>\$1 52+</b> |
| “ “ .....                        | 1          | 2 25           | <b>Edgers' helpers.....</b>      | <b>1</b>   | <b>\$1 00</b>  |
| <b>No. and average wages....</b> | <b>108</b> | <b>\$1 35+</b> | “ “ .....                        | 3          | 1 15           |
|                                  |            |                | “ “ .....                        | 7          | 1 25           |

TABLE NO. 2.—Continued.

| Occupation.                         | Number. | Wages per day. | Occupation.                       | Number. | Wages per day. |
|-------------------------------------|---------|----------------|-----------------------------------|---------|----------------|
| <b>Edgers' helpers—Continued:</b>   |         |                | <b>Engineers.....</b>             | 15      | \$2 50         |
| " " .....                           | 6       | \$1 37½        | " .....                           | 3       | 2 75           |
| " " .....                           | 1       | 1 40           | " .....                           | 2       | 2 80           |
| " " .....                           | 18      | 1 50           | " .....                           | 16      | 3 00           |
| " " .....                           | 4       | 1 62½          | " .....                           | 6       | 3 25           |
| " " .....                           | 8       | 1 75           | " .....                           | 7       | 3 50           |
| " " .....                           | 1       | 1 87½          | " .....                           | 1       | 3 75           |
| " " .....                           | 1       | 2 00           | " .....                           | 8       | 4 00           |
| " " .....                           | 3       | 2 25           | " .....                           | 1       | 4 25           |
| <b>No. and average wages....</b>    | 53      | \$1 52+        | " .....                           | 1       | 4 50           |
| <b>Edging and slab cutters.....</b> | 1       | \$1 00         | <b>No. and average wages....</b>  | 80      | \$2 86+        |
| " " .....                           | 12      | 1 12½          | <b>Engineers' assistants.....</b> | 1       | \$1 37½        |
| " " .....                           | 63      | 1 25           | " " .....                         | 1       | 1 40           |
| " " .....                           | 35      | 1 37½          | " " .....                         | 3       | 1 50           |
| " " .....                           | 2       | 1 40           | " " .....                         | 1       | 1 75           |
| " " .....                           | 59      | 1 50           | " " .....                         | 1       | 2 25           |
| " " .....                           | 12      | 1 62½          | <b>No. and average wages....</b>  | 7       | \$1 61+        |
| " " .....                           | 10      | 1 75           | <b>Filers.....</b>                | 4       | \$2 00         |
| " " .....                           | 2       | 1 87½          | " .....                           | 1       | 2 12½          |
| " " .....                           | 4       | 2 00           | " .....                           | 2       | 2 50           |
| " " .....                           | 5       | 2 25           | " .....                           | 4       | 2 75           |
| " " .....                           | 1       | 2 50           | " .....                           | 16      | 3 00           |
| " " .....                           | 4       | 2 75           | " .....                           | 10      | 3 25           |
| <b>No. and average wages....</b>    | 210     | \$1 42+        | " .....                           | 14      | 3 50           |
| <b>Elevator men.....</b>            | 5       | \$1 12½        | " .....                           | 7       | 3 75           |
| " " .....                           | 1       | 1 15           | " .....                           | 11      | 4 00           |
| " " .....                           | 1       | 1 25           | " .....                           | 2       | 4 25           |
| " " .....                           | 2       | 1 50           | " .....                           | 3       | 4 50           |
| " " .....                           | 1       | 1 62½          | " .....                           | 3       | 5 00           |
| <b>No. and average wages....</b>    | 10      | \$1 26½        | <b>No. and average wages....</b>  | 77      | \$3 41+        |
| <b>Engineers.....</b>               | 6       | \$1 75         | <b>Filers' helpers.....</b>       | 2       | \$1 25         |
| " .....                             | 4       | 2 00           | " " .....                         | 1       | 1 37½          |
| " .....                             | 1       | 2 12½          | " " .....                         | 2       | 1 62½          |
| " .....                             | 8       | 2 25           | " " .....                         | 6       | 1 75           |
| " .....                             | 1       | 2 37½          |                                   |         |                |

TABLE NO. 2.—*Continued.*

| Occupation.                       | Number.    | Wages<br>per day. | Occupation.                      | Number.   | Wages<br>per day. |
|-----------------------------------|------------|-------------------|----------------------------------|-----------|-------------------|
| <b>Filers' helpers—Continued:</b> |            |                   | <b>Foremen, lath mills.....</b>  | <b>1</b>  | <b>\$2 50</b>     |
| “ “ .....                         | 2          | \$2 00            | “ “ .....                        | 7         | 3 00              |
| “ “ .....                         | 1          | 2 25              | “ “ .....                        | 1         | 3 50              |
| <b>No. and average wages....</b>  | <b>14</b>  | <b>\$1 70+</b>    | “ “ .....                        | 1         | 5 00              |
| <b>Firemen.....</b>               | <b>11</b>  | <b>\$1 25</b>     | <b>No. and average wages....</b> | <b>12</b> | <b>\$3 02+</b>    |
| “ .....                           | 9          | 1 37½             | <b>Gang-canthers.....</b>        | <b>1</b>  | <b>\$1 37½</b>    |
| “ .....                           | 3          | 1 40              | “ “ .....                        | 6         | 1 50              |
| “ .....                           | 20         | 1 50              | “ “ .....                        | 1         | 1 75              |
| “ .....                           | 12         | 1 62½             | <b>No. and average wages....</b> | <b>8</b>  | <b>\$1 51½</b>    |
| “ .....                           | 55         | 1 75              | <b>Gang-clearers.....</b>        | <b>2</b>  | <b>\$1 12½</b>    |
| “ .....                           | 11         | 1 87½             | “ “ .....                        | 10        | 1 25              |
| “ .....                           | 1          | 1 90              | “ “ .....                        | 15        | 1 37½             |
| “ .....                           | 14         | 2 00              | “ “ .....                        | 1         | 1 40              |
| “ .....                           | 4          | 2 25              | “ “ .....                        | 31        | 1 50              |
| “ .....                           | 1          | 2 50              | “ “ .....                        | 14        | 1 62½             |
| “ .....                           | 1          | 2 75              | “ “ .....                        | 15        | 1 75              |
| <b>No. and average wages....</b>  | <b>151</b> | <b>\$1 68+</b>    | “ “ .....                        | 3         | 1 80              |
| <b>Foremen.....</b>               | <b>1</b>   | <b>\$1 90</b>     | “ “ .....                        | 1         | 1 90              |
| “ .....                           | 5          | 2 00              | “ “ .....                        | 3         | 2 12½             |
| “ .....                           | 2          | 2 25              | “ “ .....                        | 4         | 2 75              |
| “ .....                           | 6          | 2 50              | <b>No. and average wages....</b> | <b>99</b> | <b>\$1 58+</b>    |
| “ .....                           | 3          | 2 75              | <b>Laborers.....</b>             | <b>2</b>  | <b>\$1 00</b>     |
| “ .....                           | 15         | 3 00              | “ .....                          | 7         | 1 12½             |
| “ .....                           | 3          | 3 25              | “ .....                          | 10        | 1 15              |
| “ .....                           | 9          | 3 50              | “ .....                          | 172       | 1 25              |
| “ .....                           | 1          | 3 85              | “ .....                          | 126       | 1 37½             |
| “ .....                           | 21         | 4 00              | “ .....                          | 59        | 1 40              |
| “ .....                           | 2          | 4 13              | “ .....                          | 224       | 1 50              |
| “ .....                           | 6          | 4 25              | “ .....                          | 8         | 1 60              |
| “ .....                           | 1          | 4 50              | “ .....                          | 29        | 1 62½             |
| “ .....                           | 1          | 4 75              | “ .....                          | 95        | 1 75              |
| “ .....                           | 14         | 5 00              | “ .....                          | 32        | 1 80              |
| “ .....                           | 1          | 6 00              | “ .....                          | 2         | 1 87½             |
| <b>No. and average wages....</b>  | <b>90</b>  | <b>\$3 09+</b>    | “ .....                          | 5         | 1 90              |
| <b>Foremen, lath mills.....</b>   | <b>1</b>   | <b>\$2 00</b>     | “ .....                          | 8         | 2 00              |
| “ “ .....                         | 1          | 2 25              | “ .....                          | 8         | 2 25              |

TABLE NO. 2.—Continued.

| Occupation.                      | Number. | Wages per day. | Occupation.                      | Number. | Wages per day. |
|----------------------------------|---------|----------------|----------------------------------|---------|----------------|
| <b>Laborers—Continued:</b>       |         |                | <b>Log-rollers.....</b>          | 1       | \$2 00         |
| “ .....                          | 1       | \$2 50         | <b>No. and average wages....</b> | 24      | \$1 54+        |
| “ .....                          | 2       | 3 00           |                                  |         |                |
| <b>No. and average wages....</b> | 790     | \$1 48+        | <b>Lumber-pilers.....</b>        | 40      | \$1 12½        |
| <b>Lath men.....</b>             | 16      | \$1 25         | “ “ .....                        | 8       | 1 15           |
| “ .....                          | 7       | 1 37½          | “ “ .....                        | 8       | 1 25           |
| “ .....                          | 10      | 1 50           | “ “ .....                        | 20      | 1 37½          |
| “ .....                          | 1       | 1 62½          | “ “ .....                        | 28      | 1 50           |
| “ .....                          | 2       | 1 75           | “ “ .....                        | 2       | 1 60           |
| “ .....                          | 3       | 2 00           | “ “ .....                        | 39      | 1 62½          |
| “ .....                          | 1       | 2 75           | “ “ .....                        | 263     | 1 75           |
| <b>No. and average wages....</b> | 40      | \$1 46+        | “ “ .....                        | 5       | 1 80           |
| <b>Log-car loaders.....</b>      | 1       | \$1 25         | “ “ .....                        | 25      | 1 87½          |
| “ “ .....                        | 2       | 1 37½          | “ “ .....                        | 55      | 2 00           |
| “ “ .....                        | 2       | 1 50           | “ “ .....                        | 11      | 2 25           |
| “ “ .....                        | 1       | 1 75           | “ “ .....                        | 3       | 2 50           |
| “ “ .....                        | 1       | 2 00           | “ “ .....                        | 3       | 2 75           |
| “ “ .....                        | 2       | 2 25           | “ “ .....                        | 1       | 3 00           |
| <b>No. and average wages....</b> | 9       | \$1 69+        | “ “ .....                        | 1       | 3 25           |
| <b>Log-jackers.....</b>          | 1       | \$1 25         | <b>No. and average wages....</b> | 512     | \$1 70+        |
| “ .....                          | 6       | 1 37½          | <b>Lumber-shovers.....</b>       | 1       | \$1 00         |
| “ .....                          | 2       | 1 40           | “ “ .....                        | 19      | 1 12½          |
| “ .....                          | 34      | 1 50           | “ “ .....                        | 15      | 1 25           |
| “ .....                          | 1       | 1 62½          | “ “ .....                        | 4       | 1 37½          |
| “ .....                          | 19      | 1 75           | “ “ .....                        | 9       | 1 50           |
| “ .....                          | 4       | 2 00           | “ “ .....                        | 1       | 1 62½          |
| “ .....                          | 1       | 2 25           | “ “ .....                        | 3       | 1 75           |
| <b>No. and average wages....</b> | 68      | \$1 59+        | “ “ .....                        | 1       | 2 00           |
| <b>Log-rollers.....</b>          | 2       | \$1 25         | <b>No. and average wages....</b> | 53      | \$1 30+        |
| “ .....                          | 2       | 1 37½          | <b>Lumber-sorters.....</b>       | 28      | \$1 12½        |
| “ .....                          | 11      | 1 50           | “ “ .....                        | 5       | 1 25           |
| “ .....                          | 5       | 1 62½          | “ “ .....                        | 7       | 1 37½          |
| “ .....                          | 3       | 1 75           | “ “ .....                        | 1       | 1 40           |
|                                  |         |                | “ “ .....                        | 14      | 1 50           |
|                                  |         |                | “ “ .....                        | 5       | 1 62½          |

TABLE NO. 2.—*Continued.*

| Occupation.                       | Number. | Wages per day. | Occupation.                       | Number. | Wages per day. |
|-----------------------------------|---------|----------------|-----------------------------------|---------|----------------|
| <b>Lumber sorters—Continued:</b>  |         |                | <b>Sawyers, circular</b> .....    | 1       | \$1 75         |
| “ “ .....                         | 10      | \$1 75         | “ “ .....                         | 1       | 2 25           |
| “ “ .....                         | 2       | 2 25           | “ “ .....                         | 3       | 2 50           |
| “ “ .....                         | 1       | 3 00           | “ “ .....                         | 11      | 2 75           |
|                                   |         |                | “ “ .....                         | 18      | 3 00           |
| <b>No. and average wages</b> .... | 73      | \$1 89+        | “ “ .....                         | 10      | 3 25           |
|                                   |         |                | “ “ .....                         | 11      | 3 50           |
| <b>Machinists</b> .....           | 1       | \$1 50         | “ “ .....                         | 2       | 3 75           |
| “ .....                           | 2       | 2 00           | “ “ .....                         | 9       | 4 00           |
| “ .....                           | 1       | 2 25           | “ “ .....                         | 2       | 4 25           |
| “ .....                           | 1       | 4 00           | “ “ .....                         | 3       | 4 50           |
|                                   |         |                | “ “ .....                         | 1       | 5 00           |
| <b>No. and average wages</b> .... | 5       | \$2 35         |                                   |         |                |
|                                   |         |                | <b>No. and average wages</b> .... | 72      | \$3 29+        |
| <b>Millwrights</b> .....          | 1       | \$1 50         |                                   |         |                |
| “ .....                           | 4       | 1 75           | <b>Sawyers, band</b> .....        | 1       | \$2 50         |
| “ .....                           | 7       | 2 00           |                                   |         |                |
| “ .....                           | 1       | 2 12½          | <b>Sawyers, drag</b> .....        | 1       | \$1 50         |
| “ .....                           | 6       | 2 25           | “ “ .....                         | 8       | 1 75           |
| “ .....                           | 7       | 2 50           | “ “ .....                         | 3       | 1 80           |
| “ .....                           | 1       | 2 75           | “ “ .....                         | 1       | 1 87½          |
| “ .....                           | 3       | 3 00           | “ “ .....                         | 5       | 2 00           |
| “ .....                           | 1       | 3 25           | “ “ .....                         | 1       | 2 12½          |
|                                   |         |                | “ “ .....                         | 2       | 2 25           |
| <b>No. and average wages</b> .... | 31      | \$2 20+        |                                   |         |                |
|                                   |         |                | <b>No. and average wages</b> .... | 21      | \$1 88+        |
| <b>Sappers</b> .....              | 1       | \$1 40         |                                   |         |                |
| “ .....                           | 4       | 1 50           | <b>Sawyers, gang</b> .....        | 1       | \$1 25         |
| “ .....                           | 3       | 1 75           | “ “ .....                         | 1       | 1 50           |
| “ .....                           | 2       | 2 00           | “ “ .....                         | 2       | 1 62½          |
| “ .....                           | 2       | 2 25           | “ “ .....                         | 3       | 1 75           |
|                                   |         |                | “ “ .....                         | 1       | 1 90           |
| <b>No. and average wages</b> .... | 12      | \$1 76+        | “ “ .....                         | 4       | 2 00           |
|                                   |         |                | “ “ .....                         | 18      | 2 25           |
| <b>Sawdust wheelers</b> .....     | 1       | \$1 00         | “ “ .....                         | 13      | 2 50           |
| “ “ .....                         | 1       | 1 12½          | “ “ .....                         | 10      | 2 75           |
| “ “ .....                         | 9       | 1 25           | “ “ .....                         | 7       | 3 00           |
| “ “ .....                         | 11      | 1 37½          | “ “ .....                         | 1       | 3 25           |
| “ “ .....                         | 14      | 1 50           | “ “ .....                         | 3       | 3 50           |
| “ “ .....                         | 2       | 1 60           | “ “ .....                         | 1       | 3 75           |
| “ “ .....                         | 1       | 1 62½          |                                   |         |                |
|                                   |         |                | <b>No. and average wages</b> .... | 65      | \$2 46+        |
| <b>No. and average wages</b> .... | 39      | \$1 39+        |                                   |         |                |

TABLE No. 2.—Continued.

| Occupation.                     | Number. | Wages<br>per day. | Occupation.                    | Number. | Wages<br>per day. |
|---------------------------------|---------|-------------------|--------------------------------|---------|-------------------|
| Sawyers, knot.....              | 1       | \$1 25            | Shingle inspectors and sorters | 3       | \$2 00            |
| “ “ .....                       | 3       | 1 37½             | No. and average wages....      | 13      | \$1 65+           |
| “ “ .....                       | 19      | 1 50              |                                |         |                   |
| “ “ .....                       | 2       | 1 62½             | Shingle jointers.....          | 1       | \$1 35            |
| “ “ .....                       | 6       | 2 00              | “ “ .....                      | 1       | 1 40              |
| No. and average wages....       | 31      | \$1 56+           | “ “ .....                      | 7       | 1 75              |
|                                 |         |                   | “ “ .....                      | 36      | 2 00              |
| Sawyers, shingle.....           | 2       | \$1 37½           | “ “ .....                      | 6       | 2 25              |
| “ “ .....                       | 1       | 1 50              | “ “ .....                      | 8       | 2 50              |
| “ “ .....                       | 19      | 2 00              | “ “ .....                      | 3       | 3 25              |
| “ “ .....                       | 4       | 2 12½             | No. and average wages....      | 62      | \$2 10+           |
| “ “ .....                       | 16      | 2 25              |                                |         |                   |
| “ “ .....                       | 5       | 2 50              | Shingle packers.....           | 1       | \$1 00            |
| “ “ .....                       | 2       | 2 75              | “ “ .....                      | 19      | 1 75              |
| “ “ .....                       | 11      | 3 25              | “ “ .....                      | 25      | 2 00              |
| No. and average wages....       | 60      | \$2 32+           | “ “ .....                      | 4       | 2 12½             |
|                                 |         |                   | “ “ .....                      | 8       | 2 25              |
| Sawyer, upright .....           | 1       | \$2 50            | “ “ .....                      | 4       | 2 50              |
|                                 |         |                   | “ “ .....                      | 7       | 2 75              |
| Scalers.....                    | 2       | \$1 37½           | “ “ .....                      | 1       | 3 00              |
| “ .....                         | 2       | 1 75              | No. and average wages....      | 69      | \$2 07+           |
| “ .....                         | 2       | 2 00              |                                |         |                   |
| “ .....                         | 1       | 2 75              | Shingle wheelers.....          | 1       | \$1 50            |
| No. and average wages....       | 7       | \$1 85+           | “ “ .....                      | 1       | 1 75              |
|                                 |         |                   | “ “ .....                      | 2       | 2 00              |
| Setters.....                    | 2       | \$1 62½           | “ “ .....                      | 1       | 2 25              |
| “ .....                         | 5       | 1 75              | No. and average wages....      | 5       | \$1 90            |
| “ .....                         | 20      | 2 00              |                                |         |                   |
| “ .....                         | 1       | 2 12½             | Slab and wood pilers.....      | 3       | \$1 00            |
| “ .....                         | 25      | 2 25              | “ “ .....                      | 1       | 1 12½             |
| “ .....                         | 2       | 2 37½             | “ “ .....                      | 40      | 1 25              |
| “ .....                         | 18      | 2 50              | “ “ .....                      | 22      | 1 37½             |
| “ .....                         | 6       | 2 75              | “ “ .....                      | 3       | 1 40              |
| No. and average wages....       | 79      | \$2 23+           | “ “ .....                      | 49      | 1 50              |
|                                 |         |                   | “ “ .....                      | 8       | 1 62½             |
| Shingle inspectors and sorters. | 1       | \$1 25            | “ “ .....                      | 26      | 1 75              |
| “ “ “ .....                     | 6       | 1 50              | “ “ .....                      | 8       | 2 00              |
| “ “ “ .....                     | 3       | 1 75              |                                |         |                   |

TABLE No. 2.—Continued.

| Occupation.                                | Number. | Wages<br>per day. | Occupation.               | Number. | Wages<br>per day. |
|--|---------|-------------------|---------------------------|---------|-------------------|
| <b>Slab and wood pilers—Cont'd:</b>        |         |                   | <b>Trammen</b> .....      | 1       | \$1 40            |
| “ “ .....                                  | 1       | \$2 50            | “ .....                   | 10      | 1 50              |
| “ “ .....                                  | 2       | 3 00              | “ .....                   | 1       | 1 62½             |
|  |         |                   | “ .....                   | 7       | 1 75              |
| No. and average wages....                  | 163     | \$1 50+           | No. and average wages.... | 26      | \$1 51+           |
| <b>Tailsawyers</b> .....                   | 1       | \$1 25            | <b>Trimmers</b> .....     | 1       | \$1 12½           |
| “ “ .....                                  | 1       | 1 37½             | “ .....                   | 8       | 1 25              |
| “ “ .....                                  | 17      | 1 50              | “ .....                   | 31      | 1 37½             |
| “ “ .....                                  | 6       | 1 62½             | “ .....                   | 3       | 1 40              |
| “ “ .....                                  | 34      | 1 75              | “ .....                   | 41      | 1 50              |
| “ “ .....                                  |         | 1 87½             | “ .....                   | 37      | 1 62½             |
| “ “ .....                                  | 1       | 1 90              | “ .....                   | 36      | 1 75              |
| “ “ .....                                  | 15      | 2 00              | “ .....                   | 14      | 1 87½             |
| “ “ .....                                  | 1       | 2 50              | “ .....                   | 5       | 2 00              |
| “ “ .....                                  | 1       | 2 75              | “ .....                   | 6       | 2 25              |
|  |         |                   | “ .....                   | 4       | 2 50              |
| No. and average wages....                  | 80      | \$1 75+           | No. and average wages.... | 186     | \$1 62+           |
| <b>Teamsters</b> .....                     | 2       | \$0 75*           | <b>Watchmen</b> .....     | 2       | \$1 00            |
| “ .....                                    | 3       | 1 00              | “ .....                   | 4       | 1 25              |
| “ .....                                    | 27      | 1 25              | “ .....                   | 4       | 1 37½             |
| “ .....                                    | 56      | 1 37½             | “ .....                   | 1       | 1 40              |
| “ .....                                    | 1       | 1 40              | “ .....                   | 12      | 1 50              |
| “ .....                                    | 51      | 1 50              | “ .....                   | 4       | 1 62½             |
| “ .....                                    | 1       | 1 62½             | “ .....                   | 4       | 1 75              |
| “ .....                                    | 11      | 1 75              | “ .....                   | 1       | 1 87½             |
|  |         |                   | “ .....                   | 2       | 2 00              |
| No. and average wages....                  | 152     | \$1 40+           | No. and average wages.... | 34      | \$1 56+           |
| <b>Tinkers</b> .....                       | 1       | \$1 50            | <b>Yardmen</b> .....      | 1       | \$1 25            |
| “ .....                                    | 2       | 1 75              | “ .....                   | 1       | 1 50              |
| “ .....                                    | 1       | 2 00              | No. and average wages.... | 2       | \$1 37½           |
|  |         |                   |                           |         |                   |
| No. and average wages....                  | 4       | \$1 75            |                           |         |                   |
| <b>Trammen</b> .....                       | 4       | \$1 25            |                           |         |                   |
| “ .....                                    | 3       | 1 37½             |                           |         |                   |
|  |         |                   |                           |         |                   |
| Total number of employes reported.....     |         |                   |                           | 4,232   |                   |
| Average wages per day of all employes..... |         |                   |                           |         | \$1 77+           |

\* Two very old men.



TABLE NO. 3.—*Showing the Number at each given rate of Wages; the Total Number and Average Wages at each Occupation of the boys under 16 years of age employed in 77 Lumber and Shingle Mills of the Saginaw Valley on July 1, 1885.*

| Occupation.               | Number. | Wages per day. | Occupation.               | Number. | Wages per day. |
|---------------------------|---------|----------------|---------------------------|---------|----------------|
| Bolt pilers.....          | 1       | \$1 00         | Lath boys.....            | 1       | \$0 65         |
| Boom boys.....            | 8       | \$0 75         | “.....                    | 68      | 75             |
| “.....                    | 1       | 1 00           | “.....                    | 1       | 80             |
| No. and average wages.... | 4       | \$0 81+        | “.....                    | 28      | 85             |
| Car loaders.....          | 1       | \$0 90         | “.....                    | 2       | 87½            |
| “.....                    | 1       | 1 12½          | “.....                    | 8       | 90             |
| No. and average wages.... | 2       | \$1 01+        | “.....                    | 78      | 1 00           |
| Cart boys.....            | 2       | \$0 70         | “.....                    | 11      | 1 12½          |
| “.....                    | 5       | 75             | “.....                    | 63      | 1 25           |
| “.....                    | 2       | 85             | “.....                    | 8       | 1 45           |
| “.....                    | 19      | 1 00           | “.....                    | 9       | 1 50           |
| “.....                    | 4       | 1 10           | “.....                    | 2       | 1 75           |
| “.....                    | 4       | 1 12½          | No. and average wages.... | 321     | \$0 94+        |
| “.....                    | 5       | 1 25           | Log jackers.....          | 1       | \$0 75         |
| No. and average wages.... | 41      | \$1 00         | “ “.....                  | 1       | 1 00           |
| Filers' helpers.....      | 1       | \$1 25         | No. and average wages.... | 2       | \$0 87½        |
| Laborers.....             | 10      | \$0 50         | Shingle packers.....      | 2       | \$0 50         |
| “.....                    | 4       | 60             | “ “.....                  | 1       | 70             |
| “.....                    | 4       | 65             | “ “.....                  | 2       | 75             |
| “.....                    | 15      | 75             | “ “.....                  | 1       | \$1 25         |
| “.....                    | 2       | 80             | No. and average wages.... | 6       | \$0 74+        |
| “.....                    | 1       | 85             | Slab cutters.....         | 1       | \$0 50         |
| “.....                    | 4       | 90             | “ “.....                  | 2       | 75             |
| “.....                    | 6       | 1 00           | “ “.....                  | 1       | 85             |
| “.....                    | 1       | 1 10           | “ “.....                  | 5       | 1 00           |
| “.....                    | 1       | 1 12½          | “ “.....                  | 3       | 1 25           |
| “.....                    | 9       | 1 25           | “ “.....                  | 1       | 1 50           |
| No. and average wages.... | 57      | \$0 82+        | No. and average wages.... | 18      | \$1 00+        |
| Lath boys.....            | 41      | \$0 50         | Slab and wood pilers..... | 1       | \$0 70         |
| “.....                    | 1       | 62½            | “ “.....                  | 8       | 75             |
|                           |         |                | “ “.....                  | 10      | 1 00           |

TABLE NO. 3.—*Continued.*

| Occupation.   | Number. | Wages per day. | Occupation.               | Number. | Wages per day. |
|---|---------|----------------|---------------------------|---------|----------------|
| Slab and wood pilers— <i>Cont'd.</i>                  |         |                | Teamsters .....           | 1       | \$1 25         |
| “ “ .....   | 1       | \$1 25         | No. and average wages.... | 2       | \$1 12½        |
| No. and average wages....                             | 15      | \$0 94+        | Tram drivers.....         | 4       | \$1 25         |
| Teamsters .....                                       | 1       | \$1 00         | Trimmers.....             | 1       | \$1 25         |
| Total number of employés under 16 years reported..... | 470     |                |                           |         |                |
| Average wages per day of all boys.....                |         |                |                           |         | \$0 93+        |

TABLE NO. 4.—*Showing the Number of Adults at each given rate of Wages; the Total Number and Average Wages at each Occupation of the Coopers, Staversmen, and men employed in and around 58 Salt Blocks of the Saginaw Valley July 1, 1885.*

| Occupation.               | Number. | Wages per day. | Occupation.               | Number. | Wages per day. |
|---------------------------|---------|----------------|---------------------------|---------|----------------|
| Coopers .....             | 6       | \$1 25         | Firemen.....              | 2       | \$1 15         |
| “ .....                   | 8       | 1 50           | “ .....                   | 7       | 1 25           |
| “ .....                   | 1       | 1 60           | “ .....                   | 30      | 1 37½          |
| “ .....                   | 21      | 1 75           | “ .....                   | 1       | 1 40           |
| “ .....                   | 2       | 1 80           | “ .....                   | 49      | 1 50           |
| “ .....                   | 63      | 2 00           | “ .....                   | 1       | 1 60           |
| “ .....                   | 22      | 2 25           | “ .....                   | 12      | 1 62½          |
| “ .....                   | 11      | 2 50           | “ .....                   | 39      | 1 75           |
| “ .....                   | 2       | 2 75           | “ .....                   | 5       | 1 87½          |
| “ .....                   | 1       | 3 00           | “ .....                   | 13      | 2 00           |
| No. and average wages.... | 132     | \$2 01+        | “ .....                   | 2       | 2 25           |
| Engineers .....           | 2       | \$1 12½        | “ .....                   | 1       | 2 50           |
| “ .....                   | 4       | 1 37½          | No. and average wages.... | 162     | \$ 1 59+       |
| “ .....                   | 1       | 1 40           | Foremen.....              | 2       | \$1 75         |
| “ .....                   | 5       | 1 50           | “ .....                   | 5       | 2 00           |
| “ .....                   | 1       | 2 50           | “ .....                   | 1       | 2 12½          |
| “ .....                   | 3       | 2 75           | “ .....                   | 4       | 2 25           |
| No. and average wages.... | 16      | \$1 71+        | “ .....                   | 4       | 2 50           |

TABLE NO. 4.—*Continued.*

| Occupation.                       | Number.   | Wages<br>per day. | Occupation.                         | Number.    | Wages<br>per day. |
|-----------------------------------|-----------|-------------------|-------------------------------------|------------|-------------------|
| <b>Foremen—Continued:</b>         |           |                   | <b>Salt-makers.....</b>             | <b>3</b>   | <b>\$4 00</b>     |
| “ .....                           | 2         | \$2 75            | “ .....                             | 2          | 5 00              |
| “ .....                           | 2         | 3 00              |                                     |            |                   |
| “ .....                           | 1         | 3 50              | <b>No. and average wages.....</b>   | <b>49</b>  | <b>\$2 45+</b>    |
| “ .....                           | 1         | 3 75              |                                     |            |                   |
| “ .....                           | 2         | 4 00              |                                     |            |                   |
| <b>No. and average wages.....</b> | <b>24</b> | <b>\$2 55+</b>    | <b>Salt-packers.....</b>            | <b>1</b>   | <b>\$1 25</b>     |
|                                   |           |                   | “ .....                             | 17         | 1 50              |
| <b>Laborers .....</b>             | <b>4</b>  | <b>\$1 12½</b>    | “ .....                             | 1          | 1 60              |
| “ .....                           | 14        | 1 25              | “ .....                             | 8          | 1 62½             |
| “ .....                           | 6         | 1 37½             | “ .....                             | 8          | 1 75              |
| “ .....                           | 5         | 1 50              | “ .....                             | 7          | 2 00              |
| “ .....                           | 1         | 1 62½             | “ .....                             | 1          | 2 25              |
| “ .....                           | 6         | 1 75              | “ .....                             | 1          | 2 50              |
| “ .....                           | 1         | 2 00              | “ .....                             | 1          | 2 75              |
| “ .....                           | 1         | 2 25              | “ .....                             | 2          | 3 50              |
| <b>No. and average wages.....</b> | <b>38</b> | <b>\$1 43+</b>    | <b>No. and average wages.....</b>   | <b>47</b>  | <b>\$1 78+</b>    |
|                                   |           |                   |                                     |            |                   |
| <b>Pumpers .....</b>              | <b>5</b>  | <b>\$1 87½</b>    | <b>Salt rakers and dippers.....</b> | <b>12</b>  | <b>\$1 25</b>     |
| “ .....                           | 7         | 1 50              | “ “ “ .....                         | 34         | 1 37½             |
| “ .....                           | 3         | 1 62½             | “ “ “ .....                         | 111        | 1 50              |
| “ .....                           | 1         | 1 75              | “ “ “ .....                         | 29         | 1 62½             |
| “ .....                           | 2         | 2 00              | “ “ “ .....                         | 21         | 1 75              |
| “ .....                           | 2         | 2 25              | “ “ “ .....                         | 1          | 1 87½             |
| “ .....                           | 1         | 2 37½             | “ “ “ .....                         | 4          | 2 00              |
|                                   |           |                   | “ “ “ .....                         | 1          | 2 50              |
| <b>No. and average wages.....</b> | <b>21</b> | <b>\$1 66+</b>    | <b>No. and average wages.....</b>   | <b>213</b> | <b>\$1 52+</b>    |
|                                   |           |                   |                                     |            |                   |
| <b>Salt-makers.....</b>           | <b>1</b>  | <b>\$1 50</b>     | <b>Stave men.....</b>               | <b>2</b>   | <b>\$1 25</b>     |
| “ .....                           | 1         | 1 62½             | “ .....                             | 6          | 1 37½             |
| “ .....                           | 14        | 1 75              | “ .....                             | 1          | 1 50              |
| “ .....                           | 9         | 2 00              | “ .....                             | 1          | 1 75              |
| “ .....                           | 3         | 2 25              | “ .....                             | 1          | 2 25              |
| “ .....                           | 5         | 2 50              | “ .....                             | 1          | 3 00              |
| “ .....                           | 1         | 2 75              | “ .....                             | 1          | 3 50              |
| “ .....                           | 9         | 3 00              |                                     |            |                   |
| “ .....                           | 1         | 3 50              | <b>No. and average wages.....</b>   | <b>13</b>  | <b>\$1 75</b>     |

TABLE NO. 4.—Continued.

| Occupation.                 | Number. | Wages<br>per day. | Occupation.                | Number. | Wages<br>per day. |
|-----------------------------|---------|-------------------|----------------------------|---------|-------------------|
| Teamsters.....              | 4       | \$1 15            | Watchmen .....             | 2       | \$1 37½           |
| “ .....                     | 6       | 1 25              | “ .....                    | 1       | 1 50              |
| “ .....                     | 4       | 1 37½             | “ .....                    | 1       | 1 62½             |
| “ .....                     | 25      | 1 50              | “ .....                    | 1       | 1 75              |
| No. and average wages.....  | 39      | \$1 41+           | No. and average wages..... | 5       | \$1 52+           |
| Total number employés.....  |         |                   |                            | 759     |                   |
| Average wages per day ..... |         |                   |                            |         | \$1 73+           |

TABLE NO. 5.—Showing the Number at each given rate of Wages; the Total Number and Average Wages at each Occupation of boys under 16 years of age, employed as Coopers, Stave and Heading Boys in and around 58 Salt Blocks of the Saginaw Valley July 1, 1885.

| Occupation.                 | Number. | Wages<br>per day. | Occupation.                 | Number. | Wages<br>per day. |
|-----------------------------|---------|-------------------|-----------------------------|---------|-------------------|
| Barrel nallers.....         | 2       | \$1 00            | Stave and heading boys..... | 20      | \$0 75            |
| Coopers .....               | 1       | \$0 75            | “ “ “ .....                 | 4       | 80                |
| “ .....                     | 5       | 1 00              | “ “ “ .....                 | 7       | 85                |
| No. and average wages.....  | 6       | \$0 95+           | “ “ “ .....                 | 3       | 90                |
| Heading pilers.....         | 2       | \$0 75            | “ “ “ .....                 | 7       | 1 00              |
| Laborers.....               | 2       | \$0 50            | “ “ “ .....                 | 7       | 1 25              |
| “ .....                     | 3       | 75                | No. and average wages.....  | 56      | \$0 83+           |
| No. and average wages.....  | 5       | \$0 65            | Salt packers.....           | 7       | \$0 75            |
| Stave and heading boys..... | 6       | \$0 50            | “ .....                     | 4       | 85                |
| “ “ “ .....                 | 2       | 60                | “ .....                     | 9       | 1 00              |
|                             |         |                   | “ .....                     | 2       | 1 25              |
|                             |         |                   | No. and average wages.....  | 22      | \$0 91+           |
| Total number employés.....  |         |                   |                             | 93      |                   |
| Average wages.....          |         |                   |                             |         | \$0 85+           |

TABLE NO. 6.—*Showing the Total Number of Persons working for each given rate of wages, in the Saw-mills, Salt-blocks, and Making Salt barrels in the Saginaw Valley on July 1, 1885; Compiled from the returns from 77 Mills and 58 Salt-blocks affected by the Strike of July and August, 1885.*

| Saw Mills—Men. |                | Saw Mills—Boys. |                | Salt Blocks—Men. |                | Salt Blocks—Boys. |                |
|----------------|----------------|-----------------|----------------|------------------|----------------|-------------------|----------------|
| Number.        | Wages per Day. | Number.         | Wages per Day. | Number.          | Wages per Day. | Number.           | Wages per Day. |
| Total, 4,232   | -----          | 470             | -----          | 759              | -----          | 93                | -----          |
| 2              | \$0 75         | 54              | \$0 50         | 6                | \$1 12½        | 8                 | \$0 50         |
| 15             | 1 00           | 4               | 60             | 6                | 1 15           | 2                 | 60             |
| 119            | 1 12½          | 1               | 62½            | 48               | 1 25           | 33                | 75             |
| 24             | 1 15           | 5               | 65             | 91               | 1 37½          | 4                 | 80             |
| 476            | 1 25           | 4               | 70             | 2                | 1 40           | 11                | 85             |
| 1              | 1 35           | 99              | 75             | 225              | 1 50           | 3                 | 90             |
| 453            | 1 37½          | 3               | 80             | 300              | 1 60           | 23                | 1 00           |
| 88             | 1 40           | 32              | 85             | 55               | 1 62½          | 9                 | 1 25           |
| 861            | 1 50           | 2               | 87½            | 114              | 1 75           |                   |                |
| 19             | 1 60           | 13              | 90             | 2                | 1 80           |                   |                |
| 246            | 1 62½          | 122             | 1 00           | 6                | 1 87½          |                   |                |
| 777            | 1 75           | 5               | 1 10           | 104              | 2 00           |                   |                |
| 43             | 1 80           | 17              | 1 12½          | 1                | 2 12½          |                   |                |
| 71             | 1 87½          | 89              | 1 25           | 36               | 2 25           |                   |                |
| 13             | 1 90           | 8               | 1 45           | 1                | 2 37½          |                   |                |
| 358            | 2 00           | 10              | 1 50           | 24               | 2 50           |                   |                |
| 23             | 2 12½          | 2               | 1 75           | 9                | 2 75           |                   |                |
| 178            | 2 25           |                 |                | 13               | 3 00           |                   |                |
| 3              | 2 37½          |                 |                | 5                | 3 50           |                   |                |
| 106            | 2 50           |                 |                | 1                | 3 75           |                   |                |
| 66             | 2 75           |                 |                | 5                | 4 00           |                   |                |
| 2              | 2 80           |                 |                | 2                | 5 00           |                   |                |
| 98             | 3 00           |                 |                |                  |                |                   |                |
| 46             | 3 25           |                 |                |                  |                |                   |                |
| 45             | 3 50           |                 |                |                  |                |                   |                |
| 11             | 3 75           |                 |                |                  |                |                   |                |
| 1              | 3 85           |                 |                |                  |                |                   |                |
| 50             | 4 00           |                 |                |                  |                |                   |                |
| 2              | 4 13           |                 |                |                  |                |                   |                |
| 11             | 4 25           |                 |                |                  |                |                   |                |
| 8              | 4 50           |                 |                |                  |                |                   |                |
| 1              | 4 75           |                 |                |                  |                |                   |                |
| 19             | 5 00           |                 |                |                  |                |                   |                |
| 1              | 6 00           |                 |                |                  |                |                   |                |

TABLE NO. 7.—*Summary of the Canvass of 77 Mills and 58 Salt Blocks affected by the Strike in the Saginaw Valley:*

|   |       |
|---|-------|
| Total number of employes on July 1, 1885, over 16 years of age..... | 4,991 |
| Total number of employes, 16 years of age and under.....            | 563   |

The ages of employes 16 years of age and under is as follows:

|                            |     |
|----------------------------|-----|
| Twelve years of age.....   | 5   |
| Thirteen years of age..... | 36  |
| Fourteen years of age..... | 66  |
| Fifteen years of age.....  | 146 |
| Sixteen years of age.....  | 272 |
| Ages not given.....        | 38  |

|  |         |
|--|---------|
| Average daily wages of all employes over 16 years of age.....            | \$1 76+ |
| Average daily wages of employes in mills over 16 years of age.....       | 1 77+   |
| Average daily wages of employes in salt-blocks over 16 years of age..... | 1 73+   |
| Average daily wages of boys in mills and salt-blocks.....                | 0 92+   |
| Average daily wages of boys in mills.....                                | 0 93+   |
| Average daily wages of boys in salt-blocks.....                          | 0 85+   |

|   |         |
|---|---------|
| Number of employes paid all cash.....   | 4,675   |
| Number of employes paid in part in store orders and part cash.....                    | 879     |
| Average proportion of the total wages of these 879 employes paid in store orders..... | 3-26ths |

|   |       |
|---|-------|
| Number of employes paid weekly.....       | 116   |
| Number of employes paid semi-monthly..... | 3,409 |
| Number of employes paid monthly.....      | 2,029 |

Thirty-seven works, running 11 hours per day, employ 2,462 persons.

Thirty works, running 11½ hours per day, employ 2,473 persons.

Ten works, running 11½ hours per day, employ 619 persons.

Average hours per day's work in the 77 mills and 58 salt-blocks, 11 hours 10 minutes.

The nativity of the employes, as nearly as could be ascertained, is as follows:

|                       | No.   | Per Ct. |
|-----------------------|-------|---------|
| Natives.....          | 2,119 | 38.08   |
| French Canadians..... | 1,330 | 23.90   |
| Germans.....          | 1,121 | 20.14   |
| Polanders.....        | 584   | 10.47   |
| Irish.....            | 200   | 3.60    |
| Swedes.....           | 67    | 1.20    |
| Bohemians.....        | 15    | .26     |
| Scotch.....           | 8     | .15     |
| English.....          | 3     | .06     |
| Not given.....        | 107   | 2.14    |

## MUSKEGON.

### SHINGLE-MILL STRIKE.

Tuesday, Sept. 1, a strike occurred among the men employed in the shingle mills about Muskegon. The wages paid at the time were : Sawyers, \$3.50 per

day; knot sawyers, \$1.60 to \$1.75 per day; bolt sawyers, \$2.50 per day; jointers, \$2.00 to \$2.12 per day; laborers, \$1.50 per day. Packers were paid seven cents per thousand. The hours for a day's work were eleven.

The demand of the strikers was for "ten hours" for a day's work "with present wages," or an increase of wages for eleven hours. The strike was commenced by the going out of fifty men from Shippey & Co.'s mill at Lakeside Tuesday, followed on Wednesday by the going out of fifty-five men from the Michigan Shingle Co.'s mill, on Thursday by one hundred and ten men of the Muskegon Shingle Co., and on Friday by one hundred and forty-six men of the L. L. Arms Company.

On Saturday work was resumed in all the mills at ten hours, with no reduction in wages. The mill men claimed that recent reductions in the price of shingles would cause a loss in the manufacture of the same if the demands of employes were conceded, but owing to the lateness of the season, coupled with a desire to close out raw material, the concession would be made. The Knights of Labor, as an organization, had no hand in the strike. Men receiving the highest wages were firmest in the demand for a change. No disturbances occurred.

#### OTHER STRIKES.

There were a few other strikes in the State during the months intended to be covered in this chapter—at Manistee, East Tawas, Menominee, and possibly at points not brought to our knowledge. The principal cases of disturbed labor have been mentioned.

#### OPINIONS AND CONCLUSIONS UPON SUBJECTS PERTAINING TO STRIKES.

##### KNIGHTS OF LABOR AND STRIKES.

A very general opinion prevails in this State that the organization known as the Knights of Labor encourage and aid the origin and continuance of strikes as an order. Such an opinion does the Knights of Labor an injustice. That some local "assemblies" have members who earnestly aid and encourage strikes is, without doubt, true, but even in such "assemblies" the ones who usually appear as advocates of strikes are Knights of Labor only in name. They are not men who earn daily or weekly wages. The organization is comparatively young; it opened its doors very wide to membership. While its laws hold that three-fourths of its members must be wage earners or farmers, and it prohibits "lawyers," "bankers" and "saloonists" from becoming members, still it receives members in no sense wage earners—men who, as the experience of the past two years amply shows, were seekers after political office even when they took the obligation of a Knight of Labor, and to-day have gained such desire and are in office, or were properly defeated by the very men whose votes they sought. Of men known as Knights of Labor and elected to office, we

believe that only those who were wage earners have shown themselves officially true to the interests of labor. While the wage worker has powerful assistance from men not elected upon special *labor tickets*, it is generally the case that only a positive wage-earner is the proper one to receive a nomination as a *Knight of Labor upon a labor ticket*.

We believe thoroughly in the efforts of Knights of Labor as wage workers (and only as such) in pressing their influence at the ballot-box. Labor demands and labor should have its representatives in the councils of city, county, State and Nation. If the wage earner cannot willingly give up his trade to take office, it were more for his interest, we believe, to elect some one of the candidates of the political parties in the field, having first satisfied himself of their pledged interest in labor, rather than support a professional politician who is using a *Knight of Labor cloak* to hide his selfish motives. When such men are relegated to the rear by votes or expulsion, the Knights of Labor organization will cease to be troubled with them, strikes will be less frequent, and the wage worker will be able to make his order a power in furthering the betterment of his fellows.

General Master Workman T. V. Powderly stands at the head of the Knights of Labor in the United States, a man of brain, mind, and ability. It must be evident to all who have read his often expressed views, that he has devoted his powers unselfishly to the advancement of his fellow workmen. He commands an order of 150,000 members, and rapidly growing. Were his lieutenants as fully endowed with devotion to the work, the Knights of Labor would come to be recognized as an association meriting the encouragement of all people, as its principles eventually will invite.

Mr. Powderly expresses himself upon the subject of strikes as follows, in July, 1885:

"The Knights of Labor was founded to act as a conciliator between employers and their workmen, and (the public does not know this) exerts all its influence, and has ever since its commencement, to prevent strikes. There never was a strike in the United States sanctioned by the organization. There never was an instance of labor trouble where the General Assembly of the Order was called in before a strike to conciliate, that matters were not amicably arranged. I remember, especially, one case in point. Some few years ago the potters in the city of Trenton disputed with the manufacturers there over wages. Thousands of men were out, and the employes had an organization among themselves and were united. There was no assembly of the Knights of Labor there, but in one of the local trade associations there happened to be a few Knights. They suggested that the general executive committee of the order be asked by the men to attempt a compromise. The suggestion was taken up, and I and my associates went to Trenton. The manufacturers said that they had no objection to meeting us and treating us courteously, but as for talking of arbitration they wouldn't think of it. But they appointed a committee and we met them, and we were courteously treated; and, marvelous as it may appear, in one day we reached a compromise that was agreeable to the men



and agreeable to the manufacturers, and that ended the trouble. There are now ten assemblies of Knights of Labor at Trenton.

"There have been instances, of course, in which our organization has helped members out on strike, when after investigation it was found that they did not act improperly. In nine cases out of ten strikes are unreasonable, growing out of unreasonableness or hotheadedness of one side or the other. The Knights of Labor organization aims to educate workmen up to a standard of reasonableness. For instance, there are strikes in times of depression when if the workmen took into consideration all things they would be inclined to concede a reduction in their wages. On the other hand, in times of depression, employers, many of them, start at once to cut and slash wages before trying to retrench in other directions. The hotheadedness and ignorance of workmen, the ignorance and selfishness of employers, are ills which we try to ameliorate. In this office we are making progress.

"The Knights of Labor began its existence in Philadelphia among the garment-cutters, and was founded in 1865 by Uriah S. Stevens, a cutter, who was trained for the Episcopal clergy. In 1878 it adopted as its declaration of principles the code framed in 1873 by the great Congress of Industrial Brotherhood, which promised so much but which came to naught. The great object of the order is the education of workmen upon economic questions, believing that with this attained the greatest progress will have been made. The only people excluded from the Knights of Labor are rumsellers, professional politicians, lawyers, bankers and loafers. These are prohibited by the constitution. They sometimes get in, but when discovered are ejected."

In a recent strike among the employés of the street railroads in St. Louis, Mo., extreme violence was resorted to, and an investigation of the blowing up of some of the cars with dynamite led to the arrest of men prominent in one of the Knights of Labor local assemblies. At once General Master Workman Powderly ordered an investigation; the guilty parties were expelled from the order, and, we believe, the charter of that assembly revoked. Mr. Powderly expresses himself as to such work of strikers in language which we copy from *The Union*, a paper published in the interest of labor in St. Louis.

This language of Mr. Powderly was published in St. Louis in March, 1885, and in October of the same year the work he so earnestly denounced was performed in that same city. It is further proof that perfect discipline has not yet been attained by the Knights of Labor over their local assemblies, and it would seem a reasonable conclusion that further and more positive action should be had as to eligibility for membership. The language of Mr. Powderly referred to was as follows:

"Our order is an army of peace. Our mission is to educate the heads and hearts, and not the hands or feet of our members. The torch of the incendiary, the dagger of the assassin and the bomb of the dynamiter are not the weapons of the Order of the Knights of Labor, and the member who advocates a resort to such methods in the assembly violates his obligation as a Knight. If each assembly will perform its duty as an educator, each member will have in his possession a light that will shine with tenfold more brilliancy than the torch of the incendiary. The God-given intellect of man, illuminated by a

knowledge of his true condition in life, will prove a more dangerous torch to the enemy of man than the torch of the incendiary.

"A complete organization and unification of the workers and their friends, and an abandonment of the mean, little, petty spites and jealousies which continually rise up between men and their duty to each other, will prove a far more powerful weapon than the dagger of the assassin.

"With men and women organized and taught by experience, discussion and association what their rights are, their united voices, when they speak out as one man in defense of a principle, will make more noise in the world than the exploding bomb of the dynamiter."

What we have given of Mr. Powderly's views as expressed by him we believe to properly represent the Knights of Labor as an organization.

*The National View*, a paper published in Washington, D. C., in the interests of labor, in its issue of Nov. 14, has this to say in reference to strikes :

"Our organization must be solidified so that upon all questions we act together. To speedily secure this end all other organizations should be merged into and become Knights of Labor. The power of ordering a strike in the name of the Knights of Labor should be taken out of the hands of local assemblies, which in too many instances are organized only for the purpose of striking. Unless this is done great injury to our order must result.

"Before a strike is resorted to, with consequent hardships and bad blood, and opportunities for lawless acts by the ignorant and vicious class, every art of peace must first be exhausted, and the strike the last argument, and have all the force of the entire and united order."

In the *Iron Moulder's Journal* of October, 1885 (a magazine published at Cincinnati, Ohio), in a communication over the signature of "Dion," appears the following earnest language :

"Oh, the horrors and miseries of strikes! Their demoralization, and deceptions and heart burnings; their degradations and antagonisms—can they never be brought to an end? Will our people never realize the true way out of them? Will they never learn their own power and how to use it?"

#### COST OF STRIKES.

To arrive at the *cost of a strike*, one must not stop at the loss of wages by the strikers, but must consider the loss to trade by depression and suspension ; loss to the wage earner who faithfully complies with duty as a member of an organization and pays his assessment to aid his fellow worker who is "out" upon a strike ; loss to the wage earners of industries depressed because of an industry stopped, this includes transportation companies, and losses that affect the people variously, as the strike is local or general. It is, therefore, impossible to give figures that will accurately measure the financial losses in Michigan because of the strikes occurring since March 1. The reports of various strikes mentioned in this chapter will convey some light idea of the cost but cannot give the actual total.

At a session of the Cigarmakers' Union held in Cincinnati, Ohio, in September last, the president showed in his report that it had cost the Union in the two years past over \$210,000 to support members out on strikes, of which there were 152, affecting 3,152 men. Of the 152 only 69 were successful.

A writer in one of the Chicago papers recently estimated some of the losses occurring because of the Hocking Valley coal miners' strike, which commenced in June, 1884. The estimates do not seem to touch the loss of wages to the miners, but gives a loss to board of trade and coal companies, \$1,630,000; to business men outside the board, \$350,000; by freights to railroads centering at Columbus, \$1,100,000; by furnaces in the valley, \$225,000; total, \$3,300,000; while the direct loss to the city of Columbus was \$3,500,000.

#### THE TEN-HOUR LAW AND CONTRACTS.

We touch upon this topic at this time as the "ten-hour law" has been an important subject of discussion in connection with the strikes of the summer, while the question of contracts to void the law has been dwelt upon by the State press.

The following is the law as passed by the Legislature of 1885. It may be found upon page 154 of Public Acts, 1885, and is numbered and entitled

[No. 137.]

#### AN ACT making ten hours a legal day's work.

SECTION 1. *The People of the State of Michigan enact*, That in all factories, workshops, salt blocks, saw mills, logging or lumber camps, booms or drives, mines or other places used for mechanical, manufacturing or other purposes within the State of Michigan, where men or women are employed, ten hours per day shall constitute a legal day's work, and any proprietor, stockholder, manager, clerk, foreman, or other employers of labor, who shall require any person or persons in their employ to perform more than ten hours per day, shall be compelled to pay such employes for all overtime or extra hours at the regular per diem rate, unless there be an agreement to the contrary.

SEC. 2. That in all contracts, engagements, or agreements to labor in any mechanical, manufacturing, or other labor calling, where such contracts or agreements are silent, or no express conditions specified, ten hours shall constitute a day's work, and the contract or agreement shall be so construed.

SEC. 3. Any individual, firm, agent of any corporation or other employers of labor, who shall take any unlawful advantage of any person or persons in their employ, or seeking employment, because of their poverty or misfortune, to invalidate any of the provisions of the preceding section, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than five dollars, nor more than fifty dollars for each offense, and it shall be the duty of the prosecuting attorney of the county in which such offense was committed, upon receiving complaint, to prosecute all such cases in the name of the People of the State of Michigan before any justice of the peace or other competent court of jurisdiction.

SEC. 4. All fines collected for violation of this act shall be turned over to the school board or board of education of the city or township wherein such fine

may be collected, and the same shall by them be disbursed for and in benefit of the public schools.

SEC. 5. Nothing in this act shall be construed to apply to domestic or farm laborers, or other laborers who agree to work more than ten hours per day.

Approved June 5, 1885.

The foregoing act took effect ninety days after the close of the Legislature, or on the 20th of September, 1885.

As by the provisions of the act, employés could, by contract or agreement, engage to work for more than ten hours, many of the employers had such contracts prepared and offered for signature as called for a waiving of claims under the law by employés.

Of such contracts prepared, none that have come under our observation seemed to have a *spirit of violation of the law* incorporated, save in one instance, but were prepared for use in the lumber camps, where men work for wages made by the month with board, and whose pay goes along even when kept from work by storms.

In the exceptional instance referred to we give a copy of the agreement, which is printed in duplicate, the duplicate being upon paper three by three and one-fourth inches in size.

#### DUPLICATE.

Agreement under the provisions of an Act of the Legislature, approved June 5, 1885, relating to the Labor Law.

#### AGREEMENT.

-----, 188...

While in the employ of the ----- Company of -----, Mich., or any time thereafter, I agree to make no charge or demand against them for extra hours or over time that my employment or their agent may require of me, and I hereby acknowledge receipt of duplicate agreement.

Signed by -----

Such a contract gives the wage worker a just right to call its author his oppressor. For the honor and credit of our State, we are glad to speak of it as an *exception* and not in harmony with the agreements principally in use.

Ten hours of manual labor is all that any man should be asked to perform for a day's work, save in cases of necessity. No argument is needed to prove such an assertion. Every citizen, whether employer or employé, knows that ten hours given to work consumes all the time in the 24 hours of the day that properly should be taken from rest and mind and health culture.

Industries of various kinds may possibly need to be run the whole 24 hours. There are men enough seeking employment who can do the work required and not work over 10 hours per day. Shifts and changes of gangs are easily arranged.

But there are thousands of wage earners who ask to make extra hours for the sake of extra pay. Men do not differ so materially that all of selfishness and desire for money getting is found only in him who pays wages. Men who earn wages are equally fond of money getting. There can be no law in this land that shall compel a man to work or prevent his working, save that which is known as a law to punish for misdemeanor or crime. If laws are made that shall make a given number of hours a day's work, it does not in any way follow that a man shall receive for half a day what he would receive for a whole day's work.

Wages will, we believe, eventually be fixed at so much per hour by all employers, unless in cases where board enters in as a part payment, or else piece work will be the system for a basis of earnings.

If to-day the Michigan wage earner is paid \$2.00, or \$1.75, or \$1.50 per day for ten hours' work, he should receive for eleven hours \$2.20, or \$1.93, or \$1.65, and so, if he shall work but eight hours he will get, with equal justness, \$1.60, or \$1.40, or \$1.20 per day. A silver dollar may not be worth a gold dollar, but the latter is never exchanged for seventy-five cents of any currency as a business transaction.

#### STRIKES AND ARBITRATION.

Already in this chapter we have shown, by testimony of strikers and by the language of the highest authority in the Knights of Labor organization, that strikes as a rule injure rather than help the cause of the wage worker, and should never be indulged in, save as a last resort, in the settlement of differences between employer and employé.

The right of a man to "strike," quit work, or refuse to go to work, is his. The consequence of such action in its loss to him is his own and he alone is responsible.

The right of a man to drive another from his work, or in any way to interfere with his labor, does not exist!

The following statute law is found on page 2246, Howell's Annotated Statutes, and on page 218, Public Acts of 1867:

[Act 163.]

SECTION 1. *The People of the State of Michigan enact*, That if any person or persons shall, by threats, intimidations, or otherwise, and without authority of law, interfere with, or in any way molest, or attempt to interfere with, or in any way molest or disturb, without such authority, any mechanic or other laborer in the quiet and peaceable pursuit of his lawful avocation, such person or persons shall be deemed guilty of a misdemeanor, and, on conviction by a court of competent jurisdiction, shall be severally punished by fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail where the offense shall have been committed, not less than one month nor more than one year, or by both fine and imprisonment, in the discretion of the court; but if such punishment be by fine, the offender shall be imprisoned in such jail until the same be paid, not exceeding ninety days.

With the protection that the foregoing act provides, men should never be driven from their work by force of a mob without the penalty of the law being enforced upon those guilty of forcing the idleness.

But in the case that the employer reduces wages, or an employé asks for an increase of wages or a decrease of hours of labor, or a grievance should occur, what shall be the action of the wage worker? Shall he strike? Good authority already quoted says: No! Not until all other efforts to adjust differences fail! What then is the remedy? Various suggestions have been made, and some of them have been tried and proved successful.

Conference and arbitration, we believe, will result in a satisfactory adjustment in nearly every instance, if so arranged for as to be understood to be a rule not to be avoided throughout the State. A grievance arising because of the unwise action of employers in a reduction of wages, when the profits of business do not warrant such reduction, should be adjusted by a conference and the injustice of the action of the employer honestly confessed; and so, when the employé asks for an increase of wages when the profits of business will not warrant such increase, he should be willing to see the error and the injustice its pressure would inflict.

More of the bond of sympathy between employer and employé which actuated the workmen in the large Tinsley Steel, Iron & Wire Works in Sheffield, England, quite recently, is needed among the men who employ and the men who are employed in our own State. The Tinsley works suffered from a depression in business more than its neighbors. By rules governing the iron workers in South Staffordshire wages are arranged by a board composed of employés and employers, and cannot be changed unless in its application to the entire district. The men of the Tinsley works recognized the peculiar hardships of their employers, and freely offered their services gratuitously for a whole week in aid of the company. In commenting upon this incident, a leading writer most aptly says:

"If such examples were more numerous in seasons of depression and ruinous competition, bred of necessity, how often would those gulfs which swallow up ruined industries be bridged over, the employer saved from disaster and ruin, and the employed from beggary and starvation."

One of the leading papers of Michigan, in referring to the subject of conference between employer and employé, recently said:

"The great barrier between capitalists, contractors, business men and laborers is the want of a mutual understanding. There is no antagonism between these classes only when created by selfish interests, and a mutual understanding would practically modify those interests so far as to make mutual explanations equivalent to a court of arbitration. The man who exchanges the sweat of his face for bread is much more likely to understand his own needs, and is much more likely to treat his own family and his employer with fairness, than an idle labor demagogue, who squeezes his bread from others by loud expressions of sympathy for laborers. When laborers and employers will learn to do

their own thinking and freely exchange views without delegating this duty to professional agitators, peace and profit will be the reward of both parties."

The pertinent question of the hour is, how shall a conference committee or a court of arbitration be made up? If a committee of wage workers would meet their employer and be met by him in a spirit of fairness, with a determination that their differences should be amicably settled, no other plan would need to be suggested. But both being interested parties, they do not always look upon each other (as they should) as members of the same business family, whose differences should not go beyond themselves. If on the part of the wage worker a committee is made up from members of a secret organization to which they belong, and that committee seeks to adjust existing differences, the probable chances are that the employers will not meet them, and in many instances they would be justified by candid people in their refusal. Such a committee made up of men who are not wage earners, but possibly professional politicians, or, if wage earners, not altogether without prejudice against the employers whom they are to meet, cannot be successful. Two of the longest and most costly strikes of 1885 in Michigan prove this position to be true. Employers are willing to meet wage workers honestly interested in settling differences of their fellow men, but they repel the approach as arbitrators of men who are known as demagogues, and, therefore, the foe rather than the friend of the workmen.

A clause in the constitution of the Knights of Labor calls for a settlement of differences by arbitration. We believe that such a desire is honestly expressed, and that any plan by which a committee of arbitrators satisfactory alike to employer and employé, could be put in operation would by that organization be approved. The suggestion has nothing new or novel in its construction as relating to a system or plan for arbitration, and yet we believe that, in all cases of differences between employer and employé, after failure to settle between themselves and before a strike shall be resorted to, the subject of difference should be submitted to a board of three arbitrators, whose decision should be accepted by the parties in difference as final and satisfactory, without prejudice against the further continuance of their business relations. The appointment or selection of such board of arbitrators should be the choosing of one person by each party to the difference, one of said persons to be a wage worker, and the two persons so chosen to choose a third person. If the two representatives of employer and employé should fail to agree upon a third person, then the two representatives should be dismissed and two other representatives chosen, who should choose a third person and thus constitute a board of arbitration. To make the foregoing plan effective, legislative action has no part. There must be an understood agreement between employer and employé at time of arranging for season's work, that should a difference arise between them relating to the subject of labor or its remuneration, then arbitration as above shall be the agreed remedy.

---

PART III.

---

TESTIMONY OF WAGE-WORKERS.

---





## PART III.

# TESTIMONY OF WAGE-WORKERS.

---

While the employer can easily from his books—if he will—answer such questions as will furnish for statistical work the number of his employés, their wages and hours for work, he is not able to give that information which may show the past and present condition, with the feelings of hope and desire of those employés.

With the desire that the wage-worker should himself furnish this Bureau with a statement of his position and condition that would of itself be testimony direct from labor, as that of the employer would be direct from capital, measures were taken with a view to securing the addresses of a large number of wage-workers from all sections of the State, and of all classes of occupations. To have attempted to reach individuals in every locality, and seek answers to questions by means of canvassers, would have caused an expenditure of money beyond the power of the Bureau to have met. It would also have caused the question to arise whether the testimony gathered was not of a selected character, rather than from those desirous of making statements.

A circular note was, therefore, addressed April 8, 1885, to the editor of each newspaper in Michigan (whose address we could secure), asking them to kindly insert the following notice in their paper, or, what would be preferable, speak editorially of the wish of the Bureau.

### NOTICE TO WAGE-WORKERS.

The Michigan Bureau of Labor and Industrial Statistics is conducting an extended inquiry into the condition, wants, and prospects of the wage-workers of this State. An invitation is given to all employes, male or female, over 18 years of age, who are desirous of, or willing to answer the questions prepared by the Bureau, to send their address, plainly written on a postal card, to the Commissioner of Labor at Lansing, Michigan.

Blanks containing questions specially prepared, with a view to securing from wage-workers reliable information bearing upon the subject of labor in which they are personally interested, will be sent to each address, together with stamped envelope for returning the blanks when filled out to the Bureau.

By giving these questions prompt and candid attention, with full and free answers, a valuable service will be rendered to the wage-workers of Michigan and to the State. No names given to the Bureau will be made public, but held in strict confidence.

The request was very generally complied with, and the notice, or editorial

words, gave wide publicity to the desire of the Bureau. Our appreciation of this courtesy of the press, and earnest thanks for the valuable aid rendered, are at this point recorded.

Our efforts, while not rewarded with the large number of addresses hoped for, were not altogether unsatisfactory, and the result greatly exceeded the number prophesied by those whose counsel is esteemed. The number of addresses sent to the Bureau by individual wage-workers was 1,084. The census of 1884 was also used to secure nearly 2,000 addresses from the several counties of the State. The latter addresses proved very unreliable, and, in many instances, the blanks sent were returned to the Bureau by postmasters.

To each address was sent a blank—as shown hereafter—together with stamped envelope for return when blank should be filled out.

Several requests were received at the Bureau asking for blanks in lots of twenty-five to five hundred, with the statement that the parties sending for them would see that they were filled out. As it was a part of the circular agreement upon the blanks that the name of the wage-worker would be held in confidence and not given to the public, thereby enabling them to use perfect freedom of thought, in answering the questions, we inclined to the belief that blanks sent in quantity to individuals would lose the value of the personal attention of the wage worker by the embarrassment of a third party. In answer to these requests it was asked that the Bureau be furnished the addresses of the persons to whom the blanks would be given, and to them they should be sent direct. Less than twenty-five addresses came from such sources.

In order, however, to properly test the strength of the position taken by the Bureau in the cases thus referred to, a lot of twenty-five blanks was sent to one address in answer to a request. From this lot there were received at the Bureau nine blanks quite completely answering the questions asked. The striking similarity of the answers upon the various blanks, as also of the hand-writing, caused a decision to investigate. Letters were written to each party whose name appeared upon the blanks, asking certain questions; replies came from seven of the nine, answering the questions asked in different form than were the answers on the blanks, while the hand-writing and signatures in no instance agreed with the blanks. As an example: One whose occupation was given on a blank as that of a "laborer" with wages at "fifty cents" per day, replied upon his business letter-head that he was a "merchant." Six who had been reported as receiving an average wages of  $85\frac{1}{2}$  cents per day, and considered themselves "underpaid" in sums ranging from \$166.66 to \$700.00 per year, or an average of \$1.35 per day underpaid, were laborers and replied to our letter showing an average daily wage of \$1.31 per day.

We feel convinced from the foregoing experience, that the plan adopted by us to reach the wage-worker in his home and individual relation was the correct one. It is not, however, a pleasant thought, that any one in the guise of a friend to the wage-earner, would desire to use this Bureau for the circulation of

false statements. The blank sent out had the following circular note upon its first page:

LANSING, MICH., *April 15, 1885.*

DEAR SIR:—In order that this Bureau may gather statistics concerning labor interests in this State that shall be valuable because of the reliability of their source, we have concluded to address by circular several thousand wage workers, covering all classes of employment, and ask them to give material aid in the work before us. This, then, is addressed to *you*, believing that your interest in the subject will cause a willing answer to be given to the questions asked on the within blank. THERE WILL BE NO MENTION MADE OF YOUR NAME in our report, and no confidence placed in this Bureau by correspondents will be in any instance violated. Therefore, be very free in giving your views. We shall be glad to receive extended replies to each question. If you are unable to answer all questions, answer such as you can. If you are unwilling to answer *any of the questions*, please return the circular, that we may know you do not wish to reply.

Respectfully yours,

C. V. R. POND,  
*Commissioner of Labor.*

Upon the second and third page were the following questions, arranged with ample room for answers:

#### INQUIRIES.

Your name? Residence?

1. Occupation? Age? Where born?
2. a. How many dependent on your support? b. Does wife or children contribute wages to support of family? c. What wages do you receive? ....day. ....week. ....month.
3. a. How long engaged in present occupation? b. How long by present employer? c. How many different kinds of business or trades have you been engaged in since 21 years of age?
4. a. How many hours a day do you work? b. How many days in the week? c. Do you consider yourself overworked? d. What reduction in number of hours per day do you think should be made in your business?
5. a. Is your business dangerous or unhealthy? b. If so, in what respect? c. How many days have you lost by sickness from April 1, 1884, to April 1, 1885?
6. What has been total expense, including loss of pay, for sickness in entire family for year ending April 1, 1885?
7. a. How many days in the year out of work for other causes than sickness? b. Cause of loss of time? c. Total money loss in wages for such time? \$. .... d. Sum total of earnings for the year ending April 1, 1885? \$. ....
8. a. Are you a member of any labor association? b. Do you receive weekly benefits in case of sickness?
9. a. Are you as well off as five years ago? b. If not, in what respect? c. Have you been obliged to reduce expenses for actual necessities? d. Have you a sewing machine? Piano or organ? e. Are your family provided with reading and music?
10. a. Do you think you could be more fairly paid for your labor than now? b. In what way? c. In what way do you think your employer unfairly profits by your labor? d. What do you consider yourself underpaid yearly?
11. a. Are you paid weekly, fortnightly, or monthly? b. Are you obliged to take goods in payment? c. What proportion? d. Are goods sold to you at market rates? *Little* above or *much* above?
12. a. Could you buy cheaper if paid oftener? b. Are wages withheld by employer? c. What reason? d. How long?
13. a. Do you rent or own your home? b. If rented, what rent per month? c. If owning home, is it mortgaged? d. What is value of home? \$. .... Amount of mortgage? \$. .... Rate of interest on mortgage?
14. a. How many children between six and fourteen years attend school? b. What portion of time? c. Have you or they decided upon their future employment? d. Is it the same as your own?
15. a. Are your future prospects of a character to enable you to feel that you can comfortably support yourself and family until your children are at proper age to support themselves wholly or in part? b. Have you a savings bank account? c. Have you money loaned at interest? d. Do you anticipate being able to lay by enough to support you in old age—say after 60?

Ample space was given for remarks, which were solicited, and a list of thirty-seven commodities was printed upon the blank, with the request that the highest and lowest prices paid for the same during the year ending April 1, 1885, should be affixed. As before stated, 1,084 blanks were sent out. Of this number five hundred and eighty-two were returned to the Bureau, twenty-nine were unavailable because of gross imperfections, leaving five hundred and fifty-three which have been used for making up the report.

The workingmen of Michigan have been invited, through the press of the State, to give us their answers to the preceding questions; their failure to do so in large numbers may not be from indifference to the subject of labor so much as from a feeling that possibly their information might expose their identity.

Whatever the reason for the light response to our invitation, the 553 blanks received are the more valuable because they come from 71 different counties and represent 85 different trades or business.

#### ANSWERS TO INQUIRIES.

##### 1.—Occupation.

The answers are wholly from males; so few were received from females that they are not used in this report. Those giving their occupations were the whole number reporting, 553, classified as follows: Carpenters and wood-workers, 107; laborers, 93; saw-mill and lumber workers, 66; farm hands, 46; engineers and firemen, 30; railroad employés, 29; machinists, 27; clerks and accountants, 22; painters, 18; brick and stone masons and plasterers, 14; mechanics, 10; blacksmiths, 11; while 80 represented 42 different trades or occupations.

##### 1.—Ages.

The number giving ages were 551 :

| No.      | Years.   | No.     | Years.   |
|----------|----------|---------|----------|
| 4.....   | 18       | 66..... | 40 to 44 |
| 5.....   | 19       | 52..... | 45 to 49 |
| 63.....  | 20 to 24 | 35..... | 50 to 54 |
| 106..... | 25 to 29 | 21..... | 55 to 59 |
| 99.....  | 30 to 34 | 12..... | 60 to 65 |
| 87.....  | 35 to 39 | 1.....  | 70       |

As will be seen, two-thirds of those reporting were under 40 years of age, and the average age of each is 36 years and 15 days. The total age of 551 persons is 19,859 years.

##### 1.—Where born.

The nativity, as given, shows 353 as born in the United States, 182 of foreign birth; 18 gave no answer. The following table shows States and countries of nativity:

TABLE NO. 8.—*Showing States and Countries of Birth of 535 Wage-workers living in 71 Counties of Michigan.*

| United States.     | No. | Foreign Countries. | No. |
|--------------------|-----|--------------------|-----|
| Connecticut.....   | 2   | Canada.....        | 93  |
| Illinois.....      | 2   | Denmark.....       | 1   |
| Indiana.....       | 9   | England.....       | 32  |
| Kentucky.....      | 1   | France.....        | 2   |
| Michigan.....      | 123 | Holland.....       | 1   |
| Massachusetts..... | 7   | Germany.....       | 15  |
| Maine.....         | 6   | Ireland.....       | 16  |
| Maryland.....      | 3   | New Foundland..... | 1   |
| Missouri.....      | 1   | Netherlands.....   | 1   |
| Nebraska.....      | 1   | Norway.....        | 2   |
| New Jersey.....    | 4   | Prussia.....       | 3   |
| New York.....      | 121 | Scotland.....      | 9   |
| Ohio.....          | 36  | Wales.....         | 1   |
| Pennsylvania.....  | 17  | Sweden.....        | 5   |
| Vermont.....       | 6   |                    |     |
| Wisconsin.....     | 2   |                    |     |
| Total.....         | 353 | Total.....         | 182 |

2. (a). *How many dependent on your support?*

This question was answered by 543, some of whom, as single men, were supporting a mother, or sister, or both. The dependents were:

|                  |   |                  |    |
|------------------|---|------------------|----|
| In 82 cases..... | 1 | In 39 cases..... | 6  |
| " 100 ".....     | 2 | " 28 ".....      | 7  |
| " 130 ".....     | 3 | " 15 ".....      | 8  |
| " 99 ".....      | 4 | " 3 ".....       | 9  |
| " 44 ".....      | 5 | " 3 ".....       | 10 |

An average of  $3\frac{1}{2}$  dependents to each wage-worker.

2. (b). *Does wife or children contribute wages to support of family?*

Answers were given by 527. "Yes," 85; "No," 442.

2. c. *What wages do you receive?*

The number answering this question is 549, of which number:

Forty-six receive from 50 cents to 95 cents per day inclusive.

One hundred and sixty-nine receive from \$1.00 to \$1.45 per day inclusive.

One hundred and sixty-five receive from \$1.50 to \$1.90 per day inclusive.

One hundred and sixty-nine receive from \$2.00 to \$5.00 per day inclusive.

Average wages paid 549 persons, \$1.67 + per day.

TABLE NO. 9.—*Showing the Wages and Number receiving the same in Detail.*

| Number Reporting. | Wages<br>Per Day. | Number Reporting. | Wages<br>Per Day. | Number Reporting. | Wages<br>Per Day. |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 3.....            | \$0 50            | 4.....            | \$1 20            | 65.....           | \$2 00            |
| 1.....            | 55                | 63.....           | 1 25              | 29.....           | 2 25              |
| 3.....            | 60                | 3.....            | 1 30              | 24.....           | 2 50              |
| 2.....            | 65                | 19.....           | 1 35              | 11.....           | 2 75              |
| 4.....            | 70                | 6.....            | 1 40              | 19.....           | 3 00              |
| 19.....           | 75                | 1.....            | 1 45              | 8.....            | 3 25              |
| 4.....            | 80                | 76.....           | 1 50              | 6.....            | 3 50              |
| 5.....            | 85                | 3.....            | 1 55              | 2.....            | 3 75              |
| 3.....            | 90                | 12.....           | 1 60              | 3.....            | 4 00              |
| 2.....            | 95                | 11.....           | 1 70              | 1.....            | 4 25              |
| 40.....           | 1 00              | 42.....           | 1 75              | 1.....            | 5 00              |
| 17.....           | 1 10              | 4.....            | 1 80              |                   |                   |
| 16.....           | 1 15              | 17.....           | 1 90              |                   |                   |

### 3. a. *How long engaged in present occupation ?*

The answers to this question are much more in harmony with the conditions of industries in Michigan than they would be in one of the older States whose industries had been longer established. The yearly establishment of new industries in our State often induces a change of occupation for better wages, pleasanter location, or other reasons personal to the wage-worker. The replies do not show a compelled change because of business depression to any great extent. There were 61 reported as in present occupation less than one year; over one and less than five years, 184; from five to ten years, 86; from ten to fifteen years, 87; from fifteen to twenty years and over, 130; not answering the question, 45. The average time engaged in each occupation, as given by 508, is eight years and eight months.

### 3. b. *How long by present employer ?*

Though a very much lesser number answered this question than the preceding one, the same reasons for changes would seem to be the cause. The answers gave 170 as having been one year or less with present employer; from two to five years, 147; from five to ten years, 61; from ten to fifteen years, 17; from fifteen to twenty years, 9; twenty years and over, 4; not reporting, 145. The average time with present employer is three years and five months.

### 3. c. *How many different kinds of trades or business have you been engaged in since 21 years of age ?*

The object of this question was to show the general position of the wage-worker as to a knowledge of more than one branch or class of work, as well as the disposition to make changes. The figures show 324 persons who have been

in more than one trade or profession; they have occupied 1,071 positions, and have given up 747 of them for those they now hold. There is little room for doubting that many of these changes were because of removals from other States or foreign countries to this, while, in some instances, a lack of the special kind of business they were accustomed to, in their new home, compelled the seeking of other positions. The reports give as having one trade or business since 21 years of age, 149; having two, 113; having three, 108; having four, 53; having five, 26; having over five and less than ten, 20; having ten or over, 4; not answering, 80. Leaving out the 149 having one trade, and the average number of trades or business to each of the 324 reporting is 3 +.

4. a. *How many hours a day do you work?* b. *How many days in the week?*

TABLE NO. 10.—*Showing Hours per Day and Days per Week Worked.*

| Hours Worked Per Day. | No. Persons Working hours given. | Days Worked Per Week. | No. Persons working days given. |
|-----------------------|----------------------------------|-----------------------|---------------------------------|
| Seven .....           | 1                                | Three .....           | 12                              |
| Eight .....           | 5                                | Four .....            | 19                              |
| Nine .....            | 7                                | Five .....            | 21                              |
| Ten .....             | 268                              | Six .....             | 415                             |
| Eleven .....          | 98                               | Seven .....           | 39                              |
| Twelve .....          | 85                               |                       |                                 |
| Thirteen .....        | 34                               |                       |                                 |
| Fourteen .....        | 17                               |                       |                                 |
| Fifteen .....         | 11                               |                       |                                 |
| Sixteen .....         | 10                               |                       |                                 |
| Total No. ....        | 536                              | Total No. ....        | 506                             |

The above table shows that half of the number reporting worked ten hours per day. The average hours for the other half is twelve, while the average hours for the whole number, 536, is eleven. But by the table following, the occupations are shown of all who reported as working over ten hours per day.



TABLE NO. 11.—*Showing the Occupations of 255 Wage-workers who Report as Working over Ten Hours Per Day.*

| Occupations.                          | Number Working |              |              |              |              |              |
|---------------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|
|                                       | 11<br>Hours.   | 12<br>Hours. | 13<br>Hours. | 14<br>Hours. | 15<br>Hours. | 16<br>Hours. |
| Accountants and clerks.....           | 3              | 3            | 3            | 2            | 4            | 1            |
| Bakers.....                           |                |              |              | 1            |              |              |
| Blacksmiths.....                      | 1              | 1            | 1            |              |              |              |
| Brewers.....                          |                | 3            | 1            |              |              |              |
| Butcher.....                          |                | 1            |              |              |              |              |
| Cheese-maker.....                     |                |              | 1            |              |              |              |
| Carpenters.....                       | 4              | 7            | 4            | 1            | 1            |              |
| Cabinet-maker.....                    | 2              |              |              |              |              |              |
| Cooper.....                           | 1              |              |              |              |              |              |
| Cooks.....                            |                | 1            |              |              | 1            |              |
| Drayman and hostlers.....             |                | 1            | 1            | 1            |              | 1            |
| Engineers and firemen.....            | 8              | 8            | 3            |              |              |              |
| Farm hands and laborers.....          | 30             | 34           | 15           | 7            | 5            | 4            |
| Fisherman and sailors.....            |                | 1            | 1            | 1            |              | 3            |
| Log scalers and lumber tallymen.....  | 3              |              |              |              |              |              |
| Mechanics, machinists.....            | 2              |              |              | 1            |              |              |
| Miller.....                           |                | 1            |              |              |              |              |
| Night watchman.....                   |                | 2            | 2            |              |              |              |
| Painters.....                         | 4              | 2            |              |              |              |              |
| Paper-makers.....                     |                | 1            |              |              |              |              |
| Railroad employés.....                | 1              | 5            |              | 3            |              |              |
| Saw-mill and salt block employés..... | 33             | 10           |              |              |              |              |
| Stevedores.....                       | 1              |              |              |              |              |              |
| Telegraph operators.....              |                | 1            | 1            |              |              |              |
| Teamsters.....                        | 1              | 1            | 1            |              |              | 1            |
| Woodsmen.....                         | 3              | 1            |              |              |              |              |
| Wood yard foreman.....                |                | 1            |              |              |              |              |
| Shoemaker.....                        | 1              |              |              |              |              |              |
| Total.....                            | 96             | 85           | 34           | 17           | 11           | 10           |

By this table it is seen that 183 of the 255 persons reported as working over ten hours, were saw-mill and farm employés, engineers, firemen and railroad men, and clerks. Carpenters and painters show 23 as working more than 10 hours, while 17 of these worked more than 11 hours. Of these two trades there was a total report of 98. It is not probable that 23½ per cent of these two trades in our State are working over ten hours, while it is probable that the showing on various occupations besides these will give a fair idea of hours worked in the State at large.

Of the 506 answering question "4 b" about eleven per cent reported as working less than six days per week, while nearly eight per cent reported as working seven days per week. Of those working less than six days, some gave reasons, such as ill health, sickness in family, and a very few, lack of work. Of those working seven days per week, the occupations of such as shoemakers and cabinet-makers would not indicate a necessity for work on the seventh day, while watchmen, railroad employés, fishermen and hostlers are often called to duty the whole week. Those reporting were made up of these occupations, and similar ones named.

4. c. *Do you consider yourself overworked?*

Those replying "yes" were 232; those answering "no" were 259; not answering, 62. Of those who said "yes," 46 were laborers, 22 farm hands, 33 carpenters, 34 saw and shingle mill employés, and 17 stationary engineers and firemen.

4. d. *What reduction in number of hours per day do you think should be made in your business?*

One hundred and forty-one think eight hours should constitute a day's work.

Sixteen think nine hours should constitute a day's work.

One hundred and twenty-eight think ten hours should constitute a day's work.

Three think eleven hours should constitute a day's work.

Five think twelve hours should constitute a day's work.

Two hundred and nine think no reduction should be made.

Fifty-one made no answer.

TABLE NO. 12.—Shows the Hours being Worked by those Answering the Question, 4 d.

| Number Answering. | Hours now worked. | Desire reduction to—hours. | Hours reduced. | Think no reduction necessary. |                   |
|-------------------|-------------------|----------------------------|----------------|-------------------------------|-------------------|
|                   |                   |                            |                | Number answering.             | Hours now worked. |
| Four.....         | 9                 | 8                          | 1              |                               |                   |
| Ninety-nine.....  | 10                | 8                          | 2              | 4                             | 8                 |
| Fifteen.....      | 11                | 8                          | 3              | 4                             | 9                 |
| Eighteen.....     | 12                | 8                          | 4              | 166                           | 10                |
| Five.....         | 14                | 8                          | 6              | 7                             | 11                |
| Seven.....        | 10                | 9                          |                | 17                            | 12                |
| Three.....        | 11                | 9                          | 2              | 3                             | 13                |
| Four.....         | 12                | 9                          | 3              | 4                             | 14                |
| One.....          | 13                | 9                          | 4              | 3                             | 15                |
| One.....          | 15                | 9                          | 6              | 1                             | 16                |
| Fifty-six.....    | 11                | 10                         | 1              |                               |                   |
| Forty.....        | 12                | 10                         | 2              |                               |                   |
| Seventeen.....    | 13                | 10                         | 3              |                               |                   |
| Three.....        | 14                | 10                         | 4              | 4                             | 8                 |
| Three.....        | 15                | 10                         | 5              | 8                             | 9                 |
| Nine.....         | 16                | 10                         | 6              | 272                           | 10                |
| One.....          | 12                | 11                         | 1              | 81                            | 11                |
| One.....          | 13                | 11                         | 2              | 80                            | 12                |
| One.....          | 15                | 11                         | 4              | 23                            | 13                |
| One.....          | 13                | 12                         | 1              | 15                            | 14                |
| Three.....        | 14                | 12                         | 2              | 9                             | 15                |
| One.....          | 15                | 12                         | 3              | 10                            | 16                |
| Total.....        |                   |                            |                | 502                           |                   |

The number desiring reduction in working hours is 293. The number thinking no reduction necessary and those not answering are 260. The average daily reduction asked for by 293 is two hours and seventeen minutes.

5. a. *Is your business dangerous or unhealthy?*

The answers were: Dangerous, 130; unhealthy, 70; dangerous and unhealthy, 40; neither dangerous or unhealthy, 275; not answering, 38.

5. b. *If so, in what respect?*

Of those answering this question, we give their reasons, and the occupations of those replying:

## UNHEALTHY.

*Exposure to weather.*—1 watchman, 5 laborers, 2 river drivers. *Dust affecting lungs.*—1 engineer, 1 cooper, 2 marble cutters, 1 miller, 5 saw and shingle mill laborers, 9 wood workers. *Poor ventilation.*—1 blacksmith, 1 cigarmaker, 1 clerk in store, 2 coal miners, 1 machinist. *Close confinement.*—2 accountants, 1 miller, 2 printers, 1 shoemaker, 3 telegraph operators. *Inhaling poison from material used.*—16 painters, 4 printers. *Inhaling gases and acids.*—1 boiler-maker, 1 drug clerk, 1 cooper, 1 sheet-iron worker. *Loss of sleep.*—1 worker in livery stable. *Malaria.*—1 railroad laborer, 1 raftsmen.

## DANGEROUS.

*From moving cars.*—1 railroad clerk, 1 baggageman, *From hot iron.*—2 moulders. *From machinery.*—4 machinists, 17 saw and shingle mill laborers, 3 wood workers. *Of the elements.*—1 sailor, 1 tugboat captain. *Of explosions.*—1 brewer, 3 engineers, 13 firemen. *Of police duty.*—3 watchmen. *From kicking horses.*—3 farriers. *From scaffolding work.*—30 carpenters, 1 cornice-maker, 4 masons, 6 painters, 3 tinsmiths. *From falling trees.*—4 woodsmen. *From falling.*—1 lumber inspector. *From loading iron.*—1 railroad laborer.

5. *How many days have you lost by sickness from April 1, 1884, to April 1, 1885?*

To this question 309 answered, giving number of days aggregating 7,803. One hundred and ninety answered "none," 20 said they "did not know," and 34 gave no answer. The greatest number of days lost by any one person was 260. The average time lost  $25\frac{1}{4}$  days.

6. *What has been total expense, including loss of pay, for sickness in entire family for year ending April 1, 1885?*

The answers to this question showed, in some instances, somewhat of guess-work; we give the figures as they come to us: Three hundred and forty-seven answered and gave figures, showing the loss, in wages and sickness, aggregating \$23,718; 71 answered that they had no expense for sickness; 34 said they "did not know," and 101 made no answer. The greatest expense reported by one individual was \$606. The average expense of those giving figures (married and unmarried) is \$69.92.

7. *a. How many days in the year out of work for other causes than sickness?*

Three hundred and twenty-nine wage-workers answered this question, and gave the total number of days unemployed as 27,746, or an average of  $84\frac{1}{2}$  days each. The greatest amount of time stated as unemployed was 227 days; 116 said they had lost no time, while 108 did not answer the question.

7. *b. Cause of loss of time.*

Forty-four men employed in and around saw-mills, said the mills were shut down during the winter season and they could find no work; 247 said they were out of work on account of bad weather and inability to procure work; 8, "works closed on account of dull trade;" 12, "labor market overcrowded;" 4, "work taken away by foreigners," while 14 gave frivolous and indefinite answers, such as, "did not want to work," "wanted a rest," "to comfort my family," "to go visiting," etc.

7. *c. Total money loss in wages for such time?*

The aggregate amount given in answer to this question was \$43,343 from 324 wage-workers. The greatest loss by any one person was \$500, and the average, \$133.77.

7. *d. Sum total of earnings for the year ending April 1, 1885.*

Four hundred and seventy-one gave the figures in answer to this question aggregating \$174,083, or an average of \$369.60. The highest earnings given was \$1,200. The average amount said to have been lost while out of work—\$133.77—added to the average earnings—\$369.60—would make the average earnings by steady work, \$503.37.

8. *a. Are you a member of any labor organization?*

One hundred and thirty-four answered "yes;" 311, "no," and 108 did not answer, or gave indefinite answers.

8. *b. Do you receive weekly benefits in case of sickness?*

Thirty-nine answered "yes," 80 "no;" a few said they "did not know," and the balance did not answer.

9. *a. Are you as well off as five years ago?*

To this inquiry 228 answered "yes," 216 said "no," while "70 said they were better off."

9. *b. If not, in what respect?*

In answer to this 5 said their "wages had been reduced;" 4, "sickness;" 3, "business ventures;" 2, "fire;" 116, "wages lower, provisions higher;" 1, "furniture worn out;" 1, "moving round;" 1, "speculation;" 1, "less money because I have less work." Ninety-four of those answering 9 *a* "yes," did not answer 9 *b*.

9. *c. Have you been obliged to reduce expenses for actual necessities.*

This question was answered by 420 out of the 553; 290 answering "yes," and 130, "no."

9. *d. Have you a sewing machine?*

To this 341 answered "yes," 117 "no," and 95 did not answer, or said they were single and had no use for one.

9. *d. Piano or organ?*

Eighty-eight answered "yes," 351 "no," 114 not answering, or having no homes.

9. *e. Are your family provided with reading and music?*

To this question 121 answered "yes," 221 said they were provided with reading, and 115 say they have neither reading nor music.

10. *a. Do you think you could be more fairly paid than now?*

This question is answered by 480; 73 not answering, 98 say they are fairly paid, and 382 say they are not fairly paid.

10. *b. In what way?—(unfairly paid.)*

Of the 382 answering 10 *a*, saying they were unfairly paid, 252 do not answer 10 *b*, while 62, representing various employments, say "more pay;" 38 say "less hours and more pay;" 30 give a diversity of answers, which are given below *verbatim*.

"By being paid cash when work is done."—*Mason*.

"By not charging me high figures for my goods."—*Laborer*.

"By better wages, based upon more justice to labor."—*Shoemaker*.

"By being paid according to hours worked."—*Farm laborer*.

"By getting what I earn."—*Mason*.

"By more labor."—*Mason*.

"By having to pay less for rent, wood and taxes."—*Mason*.

"By increasing the circulating medium."—*Laborer*.

"By receiving pay for work over ten hours."—*Clerk*.

"By substituting day's work for contracts."—*Carpenter*.

"By ten hours' pay for eight hours' work."—*Railroad coach painter*.

"By being paid \$1.00 a day for common labor, \$1.50 a day in haying, and \$2.00 a day in harvest."—*Farm laborer*.

"By shortening the hours."—*Painter*.

"By receiving just wages for my labor."—*Cooper; R. R. Laborer*.

"By not subletting jobs until labor gets next to nothing."—*Stevadore*.

"By receiving a larger share of the profits I produce."—*Fireman*.

"By good and wise legislation he (my employer) now has all the advantage; I sue him, and as I can't give bonds I have to quit."—*Laborer*.

"By every man being obliged by law to be master of his trade."—*Carpenter*.

"By receiving just proportion of the profits that accumulate from my labor."—*Woodsmen*.

"By having a law compelling all mechanics to serve an apprenticeship of three years."—*Carpenter*.

"By establishing labor organizations and compelling employers to pay the full value of labor."—*Millwright*.

"By giving me back the labor that has been taken from me."—*Laborer*.

"By a just distribution of the wealth we create."—*Carpenter*.

"By making my wages a percentage of the profits of my earnings."—*Book-keeper*.

"The wealth I help to create is unfairly distributed. I experience every day that my employer, who works neither so hard nor so long as I do, lives in luxury while I am reduced to a bare living, and that must be wrong, as I know that our Creator certainly entitled me to the same enjoyment of life's blessings as him."—*Hostler*.

10. *c. In what way do you think your employer unfairly profits by your labor?*

One hundred and seventy-four who answered this say, "by paying in store orders." Other answers we give in detail.

"By making us stand breakages when doing piece-work."—*Moulder*.

"By charging four or five times as much for his work as he pays us for doing it, including material."—*Machinist*.

"My employer to some extent suffers as much as I do; he is in the grasp of monopolists."—*Shoemaker*.

"By getting a fair day's work, and then getting three or four hours more for chores."—*Farm laborer*.

"By paying me \$1.75 when I earn \$2.50."—*Mason*.

"By getting my labor and not paying for it as soon as he gets it."—*Mason*.

"Paying me small pay, and charging me high prices for what I have to buy of them."—*Mason*.

"By reducing my wages."—*Laborer*.

"By exacting more than ten hours a day and more than six days in a week."—*Clerk*.

"By withholding my money for two weeks."—*Sheet-iron worker*.

"By cutting us down one cent per barrel, which he pockets."—*Cooper*.

"By overwork, long hours on docks, dishonest jobbers, and captains cheating in hours. Often jobbers do not pay at all."—*Stevedore*.

"By cutting my wages down every season and piling more work on my shoulders."—*Fireman*.

"By not paying me oftener."—*Carpenter*. (Is paid monthly.)

"By taking for a standard the wages of inexperienced workmen."—*Carpenter*.

"In compelling me as a laboring man to cut short the necessities of life, that he may enjoy the luxuries and go on without interruption in the accumulation of wealth. In conspiring with his fellow-employers to bring about a lower rate of wages than now."—*Woodsman*.

"By taking advantage of the necessities of the employé, and receiving \$2.00 worth of work for \$1.00 in money on the plea of hard times, caused by just such a course."—*Millwright*.

"By obliging me to buy his goods at his own figures."—*Lumberman*.

"Too many foreigners who will work for so small pay that he requires me to work for the same."—*Laborer*.

"Taking advantage of our necessities and charging more for our work than it costs him."—*Carpenter*.

"By withholding my wages without paying interest."—*Boiler-maker*.

"In over-rating the value of money without brains, and under-rating intelligent labor."—*Book-keeper*.

"The employer has got to make twenty per cent or take it out of the laborer."—*Shingle-jointer*.

"By not paying wages enough to encourage sufficient preparation."—*Teacher*.

"By cutting down our wages and keeping their rates of freight as high as ever."—*R. R. Laborer*.

"By working me extra hours without compensation."—*R. R. Agent*.

"By paying me small wages and retaining one month's pay."—*R. R. Laborer.*

"By letting me do two men's work and not promoting me, for if they did they would have to hire two men to do my work."—*R. R. Agent and Operator.*

"My employer pays me \$1.75 and charges his customers from \$5.00 to \$15.00 for the same.—*Machinist.*

"By not making our rates per hour the same in winter as in summer."—*Machinist.*

10. *d. What do you consider yourself underpaid yearly?*

The answers to this question, showing as they do that those receiving the largest wages claim to be underpaid the most, are well worth a careful reading.

The number who say they are underpaid is 382, but only 243 state the amount they consider themselves underpaid. The total amount claimed to be underpaid yearly is \$41,841, an average of \$172.19 each.

Thirty-six receiving wages ranging from 65 cents to \$1.00 per day, claim they are underpaid \$4,905, an average of \$136.25 each.

One hundred and seven receiving wages of from \$1.10 to \$1.50 per day, state the amount underpaid as \$15,062, an average of \$140.76 each.

Sixty-five receiving from \$1.55 to \$2.00 per day, claim to be underpaid \$13,011, an average of \$200.17 each.

Thirty receiving from \$2.25 to \$3.00 per day, claim to be underpaid \$7,488, an average of \$249.60 each.

Five who receive from \$3.25 to \$5.00 per day, claim that they are underpaid \$1,375, an average of \$275 each.

11. *a. Are you paid weekly, fortnightly, or monthly?*

This question is answered by 520, divided as follows: Weekly, 146; fortnightly, 32; monthly, 177; "whenever I want it," 28; while 137 say they have no regular pay day.

11. *b. Are you obliged to take goods in payment?*

To this 51 answer "yes;" 351 "no;" 105 say "part."

11. *c. What proportion?*

The answers to this question are very indefinite, many saying "can't tell," "don't know," etc., while a large majority do not answer the question. We give the following answers, the figures denoting the number who give the preceding answers: "Half or more," 2; "the whole," 2; "about half," 5; "about one-third," 4; "about three-fourths," 1; "two-thirds at least," 1; "clothing and flour," 1; "seven-tenths," 1; "groceries and provisions," 1; "very nearly all," 1; "wearing apparel and groceries," 1; "in winter, all; in summer, one-half," 1; "one-quarter," 1; "one-half," 4.

11. *d. Are goods sold to you at market rates? Little above or much above?*

Of those who receive the whole or part of their pay in goods, 43 answer "yes;" 55 say "no; much above," and 50, "no; little above."



12. a. *Could you buy cheaper if paid oftener?*

The answers to this question came from 144 persons, of whom there were paid semi-monthly and answering "yes," 7; "no," 5. Of those paid monthly 85 answer "yes," and 47 "no."

12. b. *Are wages withheld by employer?*

Of the answers to this, 181 answer "yes," 230 "no," 142 not answering.

12. c. *What reason?*

We give the answers to this question in detail:

"Dull season and no business."—*Tailor*.

"Lack of funds."—2 *Laborers*, 1 *lumberman*, 1 *engineer*, 1 *mason*, 1 *farm laborer*, 2 *carpenters*.

"Withholds one shilling per day until end of season."—*Saw-mill laborer*.

"Wants to use the money."—*Farm laborer*.

"Pure cussedness."—*Carpenter*.

"Hard times."—*Laborer*.

"Holding his stock for better prices."—*Laborer*.

"To make up pay-rolls."—2 *R. R. Laborers*, 1 *paper maker*, 1 *saw-mill laborer*.

"So I will have to take store pay."—1 *Night watchman*, 1 *laborer*.

"To protect himself against imposition."—*Laborer*.

"To make money with the workingman's wages by drawing interest at the bank."—1 *Machinist*, 1 *fireman*.

"For his own benefit."—*Shingle sawyer*.

"To do business on laborers' capital."—*Machinist*.

"To monopolize our trade."—*Carpenter*.

12. d. *How long?*

The answers received to this question in detail are as follows:

"From a week to ten days."—*Mason*.

"One to three weeks."—*Laborer*.

"Sixty to ninety days."—1 *Laborer*, 1 *watchman*.

"One month."—*Fireman salt block*.

"Ninety days."—1 *Carpenter*, 1 *laborer*, 1 *farm laborer*.

"Sometimes three months."—*Engineer*.

"Thirty to sixty days."—*Laborer*.

"As long as they are able to keep it."—*Machinist*.

"Ten to thirteen days."—*Paper-maker*.

"Fifteen days."—1 *Laborer*, 1 *tug captain*.

"Ten days."—*Saw-mill laborer*.

"Six months to a year."—*Shingle sawyer*.

"Six weeks."—*Carpenter*.

"One month to one year."—*Carpenter*.

"Sixty days."—1 *Mason*, 1 *tailor*.

"Five or six months."—*Laborer*.

"Two to four weeks."—*Laborer*.

"Twelve to fifteen days."—*Saw-mill laborer*.

"Three or four weeks."—*Laborer*.

"Seven months."—*Saw-mill laborer*.

"One to six months."—*Farm laborer*.

"One to two months."—*Farm laborer.*

"Sometimes for life."—*Carpenter.*

13. *a. Do you rent or own your home?*

Answering this question, 229 own their homes; 219 rent their homes; 55 single men neither own nor rent; 40 do not answer.

13. *b. If rented, what rent per month?*

Of the 219 renting, as shown in previous questions, 216 give the figures showing rents paid per month; 3 do not answer.

TABLE NO. 13.—*Showing the Rents Paid in Detail.*

| Number. | Rent Paid. |        | Number. | Rent Paid. |        | Number. | Rent Paid. |        |
|---------|------------|--------|---------|------------|--------|---------|------------|--------|
| 16      | Per month  | \$2 00 | 4       | Per month  | \$4 25 | 2       | Per month  | \$7 50 |
| 4       | " "        | 2 25   | 4       | " "        | 4 50   | 22      | " "        | 8 00   |
| 4       | " "        | 2 75   | 41      | " "        | 5 00   | 4       | " "        | 8 50   |
| 13      | " "        | 3 00   | 3       | " "        | 5 50   | 7       | " "        | 9 00   |
| 1       | " "        | 3 25   | 23      | " "        | 6 00   | 15      | " "        | 10 00  |
| 3       | " "        | 3 50   | 1       | " "        | 6 50   | 3       | " "        | 11 00  |
| 28      | " "        | 4 00   | 9       | " "        | 7 00   | 4       | " "        | 12 00  |
| -----   | -----      | -----  | -----   | -----      | -----  | 5       | " "        | 15 00  |

Average monthly rent paid, \$5.90 +.

13. *c. If owning home, is it mortgaged?*

Of the 229 who answered 13 *a.* saying they owned their homes, 103 answer this question "yes," 110 answer "no," 16 give no answer.

13. *d. What is value of home? Amount of mortgage? Rate of interest on mortgage?*

Of those owning homes, 225 report values aggregating \$220,645; those reporting amount of mortgages are 103, and the amount aggregates \$32,870. Those reporting rate of interest are 103; the average rate paid is 7.96 per cent. A wagonmaker reports the value of his home \$1,000; mortgage on the same, \$1,000. The lowest mortgage on greatest value is \$100 upon \$2,000. The following statement will be found interesting:

|   |              |
|---|--------------|
| Total value of two hundred and twenty-five homes.....         | \$220,645 00 |
| Average value of two hundred and twenty-five homes.....       | 980 64 +     |
| Highest value reported.....                                   | 3,000 00     |
| Lowest value reported.....                                    | 150 00       |
| Total amount of mortgages on one hundred and three homes..... | 32,870 00    |
| Average mortgage on each.....                                 | 319 12½      |
| Total value of one hundred and three homes, mortgaged.....    | 105,000 00   |

|  |            |
|--|------------|
| Average value of one hundred and three homes, mortgaged.....         | 1,019 41+  |
| Total value of 122 homes not mortgaged.....                          | 115,645 00 |
| Average value of homes not mortgaged.....                            | 947 91     |
| Largest mortgage reported (value \$1,800).....                       | 1,800 00   |
| Smallest mortgage reported (value \$200).....                        | 25 00      |
| Average value above mortgages, two hundred and twenty-five homes.... | 834 55+    |
| Total value above mortgages, two hundred and twenty-five homes.....  | 187,775 00 |
| Total mortgages on fifty-one homes (\$250 or less on each).....      | 6,885 00   |
| Total value of said fifty-one homes.....                             | 37,950 00  |
| Average mortgage on each of said fifty-one homes.....                | 135 00     |
| Average value of each of said fifty-one homes.....                   | 744 11+    |
| Total mortgage on fifty-two homes (over \$250 each).....             | 25,985 00  |
| Average mortgage on each of said fifty-two homes.....                | 499 70+    |
| Total value of said fifty-two homes.....                             | 67,050 00  |
| Average value of each of said fifty-two homes.....                   | 1,289 42+  |
| Average value above mortgage of the fifty-two homes referred to..... | 805 19     |
| Average value above mortgage of the fifty-one homes referred to..... | 609 11+    |

## INTEREST ACCOUNT.

|   |                    |
|---|--------------------|
| Three mortgages pay interest at six per cent on total.....        | \$1,600 00         |
| Fifty-four mortgages pay interest at seven per cent on total..... | 18,964 00          |
| Nineteen mortgages pay interest at eight per cent on total.....   | 6,310 00           |
| One mortgage pays interest at nine per cent on total.....         | 600 00             |
| Twenty-six mortgages pay interest at ten per cent on total.....   | 5,396 00           |
| Total—(One hundred and three mortgages).....                      | <u>\$32,870 00</u> |
| Total interest yearly on one hundred and three mortgages.....     | <u>\$2,521 88</u>  |
| Average interest yearly on each.....                              | <u>24 48+</u>      |

14. a. *How many children between six and fourteen years attend school?*

To this question there are 212 answers showing that children attend school. There are no answers showing that children between the ages mentioned do not attend school. Of those answering this question, 99 report one child each; 63 report two children each; 34 report three children each; 12 report four children each; 4 report five children each. Total number of children in 212 families between six and fourteen years attending school, 395.

14. b. *What portion of time?*

The answers to this question cover but 365 of the 395 children attending school. Seven attend three months of the year; 6, four months; 40, six months; 37, eight months; 275, ten months. Total number of months' school attendance, 3,331. Average months' attendance each child, nine months and three days.

14. c. *Have you or they decided upon their future employment?*

There are but 192 answers to this question. Twenty-seven say "Yes;" 165 say "No."

14. *d. Is it the same as your own?*

This question is directly in connection with the previous one. Of the 27 answering 14 *c*, 1 answers this question "Yes;" 23 answer "No." They are found to be by occupations: Ship carpenter, "Yes;" carpenter, expressman, weaver, wood-worker, mechanic, railroad engineer, night watchman, stone cutter, sheet-iron worker, 6 laborers, 2 blacksmiths, 6 saw-mill employés, "No."

15. *a. Are your future prospects of a character to enable you to feel that you can comfortably support yourself and family until your children are at a proper age to support themselves wholly or in part?*

The answers to this question were 383, given in detail as follows: "Yes," 150; "yes, if times continue as at present," 5; "if health permits," 7; "I think so," 23; "No," 78; "not with times as at present," 19; "not with present wages," 7; "looks dark," 9; "doubtful," 13; not answering, 170.

15. *b. Have you a savings bank account?*

There were 510 answers, of whom 474 said "no;" 36 answered "yes." Not answering, 43.

15. *c. Have you money loaned at interest?*

To this question there were 503 answers, of which 451 said "no," and 52 said "yes." Not answering, 50.

Those answering the questions 15 *b* and *c*, either both or one of each, "yes," had occupations as follows: Clerks and book-keepers, 10; carpenters, 4; engineers, 5; farm hands, 10; laborers, 4; machinists, 8; railroad employés, 3; saw-mill employés, 4; tinnerns, 2; wood-workers, 2. Of 17 other occupations there was one each.

Those answering "no" to the same questions were 9 blacksmiths, 80 carpenters, 6 cabinet-makers, 13 clerks and book-keepers, 7 coopers; 16 engineers, 8 firemen, 2 fishermen, 33 farmhands, 2 gardeners, 3 hostlers, 83 laborers, 13 masons, 22 machinists, 2 millwrights, 2 millers, 3 marble cutters, 4 moulders, 16 painters, 4 printers, 21 railroad employés, 53 saw-mill employés, 2 salt packers, 3 shoemakers, 5 teamsters, 2 telegraph operators, 3 tinnerns, 3 wagon-makers, 4 watchmen, 4 wood-workers, and representatives of 18 other occupations.

15. *d. Do you anticipate being able to lay by enough to support you in old age—say after 60?*

There were 490 answers. Of these 196 said "yes;" 25, "I hope to;" 5, "if health permits;" 215, "no;" 18, "not with present wages;" 31, "uncertain," and "doubtful." Not answering, 63.

### VIEWES OF WORKINGMEN.

Under the head of "Remarks" on the last page of the blanks sent to wage-

workers, our invitation to write freely and fully their views relative to the subject of labor was most cordially responded to.

Of the 553 blanks received, 444 contained expressions of views, suggestions or opinions of the person filling out the blank. In some instances, for lack of room upon the page intended for remarks, accompanying sheets were sent, with a full and lengthy expression of the feelings of the writer upon the subject which most interested him. A very few cases there were where the writers had formed an idea that the Bureau was a charity department and requests for clothing were made; or that it was the head of a secret labor organization, and the cost of fees and dues were asked for. Three or four only gave utterance to any feeling of sympathy with communistic or anarchistic sentiments. The subjects touched upon were varied, and we give in the following pages a fair example of the expressions upon each subject, attempting to avoid repetition save where necessary to show the various occupations touching the same subject. A very large number of the communications gave expression as to "Foreign Labor" effecting the depression in wages, the sentiment was so similarly expressed that to give more than are published would be but repetition. The "Hours of Labor" was a subject that was dwelt upon by a large number of the writers, and we give quite a number of their articles, which, when compared with the tables on preceding pages, in answer to questions 4 *a*, *b*, *c* and *d*, will be the more interesting.

The views of workingmen are given as they were received at the Bureau. They are the honest expressions of men who, after a day of work or seeking after work, in the quiet of home, without interruption of questioning, have availed themselves of our pledge to keep their personal identity from the public, and placed their thoughts upon paper in such a frank and intelligent manner as makes their reading an interesting study. Many of the authors of these views are receiving the wages of a common laborer, while a judgment passed upon the perfectness of their penmanship and the style of language used would accord them positions where good salaries are paid.

The views, opinions and suggestions herewith published, cover a good part of the great review ground of the labor question. They come from the men who are interested in finding a solution to the problem. If there shall be in this web of wage-workers' thought some suggestion, some idea, that will be caught up, even as Sir Isaac Newton utilized the fact shown in the falling apple, and being broadened and improved upon, prove even a step in the direction so much desired by all wage-workers and wage-payers, the writers will have been proved benefactors. Whether so or not, the views are valuable, as expressing the sentiments of men who are seldom heard in public.

The published views come from 36 different counties of our State. Without being responsible for any expressions in them contained, or because of making them public, thereby being held as endorsing them wholly, we ask a careful perusal of them.

Grouped under heads which seem to give the topical thought of the writer, we publish the occupation given by him.

#### APPRENTICESHIP.

*From a Printer.*—As to my position as a wage worker, I think it could be benefited, not directly by legislation, but could be helped in the matter of a good apprentice law, one which would make it obligatory upon an employer to teach his apprentices the trade before starting them out to work at a business they know little or nothing about. I am the foreman in this office and have under my control two girls and a boy, neither of which ought to be engaged in their present occupation, as they have not the ability to become proficient.

*From a Painter.*—Apprenticeship should be encouraged, but so regulated that apprentices should not become journeymen or journeymen masters, before they have thoroughly mastered every detail of the business. As it is now, any one can take up a brush and declare themselves a painter, or a hammer and square and be a carpenter, and thus directly compete with others who have spent time and money in preparing themselves for the business, thus reducing wages to a minimum and lowering the grades of all classes of work.

*From a Printer (age 18.)*—I have worked at the printer's trade for the past five years and only receive \$5.00 per week. I am quite small of my age, but I think that when a boy can do a man's work he ought to have a man's pay, no matter if he is big or little. I believe in equal pay for equal work. I have asked my employer for more wages, but have been refused, because as a boy they think I ought not to have any more. I can do as much work in a day as any printer. Besides, I have never received a cent for time that I have worked extra, which has been considerable.

#### CAUSE OF HARD TIMES.

*From a Cooper.*—There is much said in regard to what causes these close times. My opinion is this: As it is now we have *dear money* and *cheap labor*. What the laboring classes want is *cheap money* and *dear labor*. How shall we get cheap money? Issue full legal tender greenbacks until we have sixteen dollars *per capita* in the United States, instead of eight dollars, as now. With the increase everything *would go booming*. Men with plenty of money want dear money and cheap labor, for money is their capital in stock. And men with small means should have cheap money and dear labor, for labor is their stock in trade.

*From a Salt Block Foreman.*—The one great cause for the present hard times among the laboring classes, in my estimation, is the advantage taken by employers of the number of men who are willing to fill any position at less wages than really competent men, thus forcing wages down, to the loss of good men. There are hundreds of men who come here to get work and have only enough to bring them here, who are forced to go to work at what they can get.

#### EMPLOYER AND EMPLOYÉ.

*From a Woodsman.*—Thanks to the honor, manliness, humanity, and love of fair play which pervades the character of my employer, he does not avail himself to any extent of the advantages which his enormous capital would give him over his men, and we are to-day better paid, better fed and better cared for generally than the men of any similar establishment in the State.

*From a Farm Hand.*—I think if farmers were a little more sociable it would be as well for themselves and better for the hired man, as the latter is considered among many farmers as only a beast of burden. I think if there was less land tilled, but better worked, it would be better for both land and farmer.

*From a Tinner.*—My employer is a gentleman who seems to appreciate sobriety and steadiness. By strict attention to business I have come to the front, which tactics I think generally prove successful. I think the greatest drawback to the workingman is his social ostracism, being treated by his employer as of a lower order of intelligence; like any other piece of machinery, to be made to do the maximum amount of work with the minimum expenditure of fuel, so to speak.

*From a Woodsman.*—If there was more sympathy on the part of employers for their employés; less of a disposition to hold themselves aloof—to isolate himself from us—to regard us as in a manner created for no other purpose than his own aggrandizement, as machines to be speculated on and worked to our utmost capacity when in good condition, but to be cast aside as worthless when out of repair, just like any other piece of machinery; in short, if there was more of a disposition on the part of our masters to regard us as human beings, with the same feelings and instincts as they themselves have, such disaffection as gives rise to strikes would be unknown.

#### FOREIGN LABOR.

*From a Shingle Sawyer.*—I believe that one of the greatest drawbacks to laborers in Michigan is that employers advertise through Canada and some of the farming States for men, who, when they arrive here, have to go to work for their board, and this causes a decline in wages.

*From a Laborer.*—The country is swarming with foreigners, taking my labor away from me, so that I am not able to educate my children.

*From a Sheet-Iron Worker.*—Protect the man who has learned a trade as well from old country labor as from old country cheap goods.

*From a Fireman.*—I am working for less wages now than ever before. More than one-half of the wage-workers here are Swedes, Danes and Norwegians. More emigrants are coming this spring. An overplus of men to dull times makes wages low.

*From a Laborer.*—I feel that the condition of the laborer to-day is due mainly to the immigration of pauper labor to take the place of American laborers. So long as the monopolists rule the country and employ foreign labor, just so long American laborers will be in a sad condition, and war and strikes will be the consequence, until the people rise in their might and assert their rights. In the language of Patrick Henry I repeat, "Let it come."

*From a Wood-Worker.*—If you wish to drive American workmen to desperation, just keep on allowing foreign labor to undermine us a short time longer and your object will be attained. A poor man's capital is his labor, a rich man's capital his money. Protect both or neither; we must have a square deal. Nine years ago, when I went to work where I am now, Americans were in the bench room; not one left now. Why? Prices cut; Americans quit; Dutch and Polanders stay. American laborers cannot live on cabbage stumps and outsides of bologna. A laborer who produces a thousand dollars' worth of work a year should have seven hundred and fifty of it, and the employer the balance. Reverse this and you have the exact condition at present.

#### HOURS OF LABOR.

*From a Teamster.*—The man who works by the month or year is more poorly paid than he who works by the day, as regards the number of hours worked; being obliged to work an unreasonable number of hours each week day; he is retained one-half of the Sabbath day to do chores, for which he receives no pay.

*From a Machinist.*—I think it would be better for every working man or woman if eight (8) hours was a legal day's work. There are too many workers in the country, with the machinery there is in use, for all to find work at the present hours of employ-

ment. It would make a big difference in the number employed and the workingman would be just as well off as at present, for the unemployed has to be kept by some one, and it is the laboring man that has to keep him and his family in the end.

*From a Farm Hand.*—A man that works on the farm cannot be particular as to the number of hours he works, but should work for the interest of his employer. A farmer has crops out that need taking care of ; the hired man ought to be willing to work or help if it was 20 hours a day. Then, again, there are rainy days when there is not much to do, and his pay goes on just the same. I think men working on the farm are paid well according to what the farmer gets for what he has to sell.

*From a Moulder.*—I am satisfied with my work. I think 8 hours is enough for a day's work for a tradesman, and 10 hours is enough for a farm laborer, and hope the State will make a law to that effect.

*From a Tinsmith.*—The eight-hour law has been agitated somewhat in different parts of the country at different times, and nothing has resulted as yet from it. While I do not ask to be paid for services *not* rendered, I *do* want pay for that I *do* render; while you observe from the beginning that I only receive pay for hours actually rendered—the loss of time falls on me. Very few employers are disposed to pay any employé, no matter how skilled or how much he may work for his interest, more than his stipulated wages per day or hour. I think we, as Americans, work too *long*, not too *hard*, as a rule. While I have no reason to complain or care whether it is 6, 8 or 10 hours a day, there are thousands of others who do. I have always dictated my own wages, as I have observed that skilled labor was worth much more than unskilled in every and all kinds of business. Yet unskilled labor is far in the majority to-day in America, and the skilled labor has to compete against it to a certain extent ; always has and always will, perhaps. Think that capital will always reign supreme over labor.

*From a Carpenter.*—If the day laborer works 10 hours, it is not too much as far as health is concerned, but I would wish for 9 hours on Saturday and pay every week with money and not goods.

*From a Railroad Blacksmith.*—Have noticed during the time that I have been in the employ of the railroad company (2 years) that, though the treatment of employés has been fair, as a rule, yet there is a steady and persistent pressure on the part of the managers to shorten privileges and to get a little more labor for, if possible, a little less expense. For instance, up to January, 1885, we were allowed 1½ time for all work over 10 hours. Since then we get only single time. They have also adopted the plan lately, when work gets slack, to lay off a number of men and keep the rest on full time, instead of reducing the hours of work and giving all a chance to earn at least something. This, I think, is done to make those who are suspended reconciled to a reduction when they are again put to work. For the past year there have been more men in this city than could get work for 10 hours a day, consequently reducing the hours to 8 per day would go a great way towards giving them work.

*From a Master Builder.*—If the number of hours was reduced to 9 instead of 10, the employer and employé would be as well satisfied with the results, and the laboring man would have more time for culture and improvement.

*From a Laborer.*—If a reduction in hours should be made without wages being established it would only cause another reduction in wages, which, at the present, are too much to starve on and not enough to live on. But eight hours would be a good thing for the laboring class, for where employers run night and day it would work three set of hands instead of two and there would be fewer idlers.

*From a Master Painter.*—I think I am fairly paid, but should have more time for home duties. Eight hours I think is the proper length for a day's work, and the pay for the same should be the same as for ten hours.



*From a Carpenter.*—I think 8 hours of the 24 is sufficient to labor—8 hours for study and 8 for sleep. I would recommend 8 hours as a day's labor for mechanics, and price at 25 cents per hour; this would enable them to realize \$624 a year and give them time to attend to their home business.

*From a Farm Hand.*—I have to work from 14 to 15 hours per day in the summer and 10 to 12 in the winter. Have very few privileges; have to work a good part of Sunday. I can manage to save by careful economy about \$175 yearly; am a single man.

*From a Gang Sawyer.*—Ten hours per day should be the limit for a day's work, and as a sawyer I maintain I could do as much work in ten hours as in eleven and a quarter hours. For then I could drive my saws a trifle harder, feed heavier, and cut just as much lumber as now, when I have to go a little slow so as to enable my saws to hold out until changed.

*From a Pattern-Maker.*—I think mechanics should not work more than eight hours a day because there are a great number of men who are idle, and if mechanics worked shorter hours it would give such men a chance to do something. We ought to have better mechanics and not so many "botches;" then we could command better wages.

#### INTOXICATING DRINKS.

*From a Laborer.*—I think rum and beer are the main cause of suffering in our ranks.

*From a Machinist.*—My experience among my fellow-workmen has been, that those that started in life with a full determination to accomplish themselves in their trade and have let liquor alone, are to-day either in positions that give them fair remuneration for their time and energies, or have a small business for themselves. The masses should be taught practical business methods. Our common school education should be more practical; more attention should be paid to industrial education.

#### OUT OF EMPLOYMENT.

*From a Machinist.*—I am out of employment so long that I am sick and tired of looking for work. The iron trade is so dull that hundreds of machinists are out of employment and others are expecting daily to be laid off. Some shops are now working seven and eight hours a day with a ten per cent reduction in their wages.

*From a Carpenter.*—I am willing to do any kind of work, in or out of doors, but am unable to secure work at any price.

*From a Painter.*—I am healthy and able to work but cannot get employment only about two or three days in a week. Money is scarce in this locality and people cannot get their work done. But prospects look more favorable.

*From a Laborer.*—I only had a very little work last summer. I did not have work enough to support my family, and last winter was but little better. Wages are very low in this part of the country.

*From a Woodworker.*—My position as a wageworker is rather blue at present, because there are so many men that are out of employment.

*From a Fisherman.*—My work is from spring until fall; no work during the winter; am out of work at present and no prospects of any work.

*From a Marine Engineer.*—I run on the lakes all summer and can't get work in the winter, so I spend all I make in the summer to live in the winter. Now I am out of work (May 11) and have been since last November. I am trying to get something to do ashore that will give me work all the year. I have a United States certificate as chief engineer. I am also a machinist and do all my own repairing.

#### PUBLIC LANDS.

*From a Log Scaler.*—I demand that the public land be reserved for actual settlers,

and not another acre for railroads or speculators, and that all lands now held for speculative purposes be taxed upon their full value; the enactment of laws compelling corporations to pay their employes weekly, in lawful money, for the labor of the preceding week.

*From an Hostler.*—I have thought over the question considerably and I think the remedy is only in making the soil of this blessed country *free* to all who want to use it. Then a large number of workingmen would exercise their brains and muscle on the cultivation of the earth, and reduce the pauper population of the cities and great industrial centers, whereby the competition of to-day would cease.

## SAVINGS.

*From a Bookkeeper.*—I differ from many wage-workers in that I use the few dollars I save in investments to add to my wages, and nearly always make a little more than my wages would indicate. If I sat still, as many wage-workers do, without exercising my brain as well as my hands, I should be poor, very poor, on \$75 per month for a family of eight persons. I was a poor country boy without education, and have added to my stock of knowledge while a wage-worker. I build my own furniture, do my own painting, and pay out nothing for work that I can do myself.

*From a Paper-maker.*—I started at \$1.00 per day for four months; next year, \$1.25; since then \$1.50 per day. The first eighteen months after marriage my wife and I both worked, saving some \$400, since then have *saved and made* enough to figure up to near \$2,000. Although I do not doubt that labor is in many instances underpaid, I think in most cases it is the employe's fault that he does not get along better. I have no taste for beer or tobacco, and am not inclined to loaf around saloons when off duty. I work 11¼ hours for my employer and from four to five hours for myself. My experience here is, that those who work for smallest wages are disposed to be economical, are in easier circumstances than others who get larger wages and do not figure so close in regard to expenditures.

*From a Carpenter.*—I do not think it possible for any man that works by the day to *save* sufficient to take care of himself in old age, especially if he should have any sickness in the family. If everything should be favorable, it might be that he could save enough to pay for a home, and that is all.

## STORE ORDER SYSTEM.

*From a Machinist.*—As a wage-worker I have never found any difficulty in securing good places and good, fair wages. The greatest difficulty that the wage-worker has to contend with, in my opinion, is the custom of many firms doing business on what is called the "white horse" plan—that is, orders. I know of some such who do not pay their men enough cash to enable them to pay their rent. I am of the opinion that if a law could be enacted to stop such payments, and be *enforced*, it would be a great relief to many of our wage-workers. It would be almost a new life to some to see money once more.

*From a Carpenter.*—The order system, which is in vogue in the north of the State, is a curse to the laborer, let him be what he may. It is nothing but a system of robbery, and should be abolished by legislation if in no other way. Give the honest workingmen of this country a chance, such as plenty of work, steady employment with weekly pay-days, and business will not be at a standstill.

*From a Saw-Mill Laborer.*—Were it not for the little land I work before and after mill hours, and almost every Sunday, my family would suffer for the necessities of life. I could take the cash and go among the farmers and buy what they have to sell for one-

third and sometimes one-half what we have to pay the company. My book account at the store shows \$1 per bushel for potatoes which did not cost the company more than 25 cents per bushel. I know of an instance where one of the men working for this firm asked for his due in cash. The firm instructed the book-keeper to pay the man and let him go. This is not the only instance.

*From a Marble Cutter.*—I have tried the store-order system and have proved by actual figures that I can buy for 30 per cent less for cash than for orders.

*From a Cooper.*—There is only one company in this town that pays cash this summer, and they did not do so through the winter, only since May. The rest pay orders on stores. I worked all last summer in same shop and under same foreman as at present, and only received \$50 in cash during the entire year.

#### THE TARIFF.

*From a Book-keeper.*—I do not believe that State legislation will practically benefit the wage-worker, and national legislation must strike at the root of the disturbing element, which is called protective tariff.

*From a Locomotive Engineer.*—Absolute free trade will better the workingman's condition more than any State or municipal legislation can without it.

*From a Locomotive Engineer.*—I have studied the labor question some and I feel convinced that absolute "free trade" will better the workingman's condition more than any State or municipal legislation can without it, as I think "Protection" protects everything but what it is intended to, viz., labor itself.

#### WAGES.

*From a Farm Hand.*—I think that wages are as high as can be expected of the farmers, as their produce brings them but a small profit; am married.

*From a Railroad Section Foreman.*—I must say, in truth and justice to the railroad company, that they have always treated me, as well as other employes, just and fair. In 1872 they paid me \$50 a month, but owing to depression in business, in 1877 we had to work for \$36 a month. But as soon as business revived we got \$40 a month, which is present wages for foremen. Section men get \$1.10 per day; no lost time for wet or stormy weather. I have found Michigan a good State, with far more chances for a man to get along than in Eastern States.

*From a Railroad Brakeman.*—I think railroad employes are fairly paid. There are instances where men are underpaid for their labor and responsibility, but as a general thing the wages paid are fair.

*From an Accountant.*—I think that much of the dishonesty prevailing among employes is the legitimate result of low wages. In my present position I have observed and can practically demonstrate that the lowest net cost of production has been obtained where the highest wages have been paid. Employers appear to be trying to ascertain how little a workingman can subsist upon rather than to determine what rate of wages will enable them to produce their wares at the lowest net cost.

*From a Locomotive Engineer.*—I think I am not recompensed fully for my labor. It requires skill, a steady nerve and a clear head to perform the duties which daily rest in the hands of the man at the reverse lever. All men are not capable of performing this duty, and one that is is brought to an early grave much earlier than in most any other business, consequently wages should be such as to enable a man in twenty years to start in a business requiring less nerve strain.

*From a Farm Hand.*—I think that wages are not equally proportionate; that is, between married and single men. I am getting \$20 a month by the year, with house

rent, cow kept and wood furnished, and it is considered good wages. There are quite a number of young men working for from \$21 to \$25 a month and their board and washing, which I consider more than I am getting. Wages as a general thing are lower around here this spring than they were last year.

*From a Railroad Section Hand.*—I do not believe there is a single branch of employment in the State where the worker is as poorly paid as the railroad trackman. A foreman is allowed to discharge married men with families that have been on the road for years, and take single men in their places for no other cause only for the purpose of boarding the single men.

*From a Mill Fireman.*—Two years ago I received \$2.00 per day and did not work so hard. Since then I have had my wages reduced each year until now I receive but \$1.60 per day. Lumber and salt are higher in price and clothing and provisions higher than two years ago.

*From a Mill Saw Filer.*—I have no reason to find fault with my condition, as my wages are good when working in the mill, and at other times I can work at something else and lay something by for a rainy day.

*From a Cigarmaker.*—I do not think I am any criterion to go by; my wages are above the average. I do know that cigarmakers are not making to-day what they used to. I am a very fast workman, above the average, but I know cigarmakers that are not making over eight dollars a week and have large families. I do consider that our trade is as good at present as almost any other, but shorter hours are advisable, but it is not probable we will ever have them. We work by the piece, and it stands every man in hand to make all he can.

*From a Wood Worker.*—This place is near to Canada. Men are hired for at least 50 cents per day less than they could get if it were not so situated. A good many emigrants stop here for a longer or shorter period. A German just "over" works in the same shop with me, speaks no English, a good workman, works for \$1.50 per day. An American would demand \$3 or \$2.25 per day, and would do at least twice as much work in the same time. Another thing hurts the workingman—*jealousy*; for instance, if I should get a job for which there was much competition, some one would try to deprive me of the job by lying and all manner of tricks, and generally they are successful.

*From a Saw Filer in Furniture Factory.*—With my experience of 25 years (11 years in present place) I think I am underpaid \$50 per year. However, this labor question is still a problem unsolved. To my mind labor is a commodity, and must go into the market upon its merits, employer and employé to be free as to conditions; any law interfering it seems to me would be arbitrary and would strike a blow at personal liberty. There is an apparent danger in our labor organizations, ignorance being a disturbing element, or for lack of education, they being unable to discuss these principles with a proper understanding. Education must, and I think is the only thing that can relieve and elevate the laboring classes. I am in favor of anything that will bring about a better understanding between capital and labor, and opposed to everything that does not tend to this end.

#### SUNDRY TOPICS.

**INSPECTION OF VESSELS.**—(*From a Lake Sailor.*)—In the first place, vessels are not half manned. In the second place, there are too many floating coffins allowed to sail on these lakes. I think vessels of all descriptions should be inspected as well as steamboats; if they were, lots of them would be condemned.

**FARM MACHINERY.**—(*From a Laborer.*)—If there was less farm machinery there would be more demand for labor, and at present prices all would be better off.

**UNSKILLED LABOR.**—(*From a Blacksmith's Helper.*)—I do not think that unskilled

labor is paid enough. I have seven to support on \$1.50 per day. My wife has to work to help me; one of my girls gets \$2.00 per week for about five months in the year; my boy gets forty-five cents per day. The wages here average \$1.30 per day for unskilled labor; it is not enough. It won't furnish what a laboring man ought to have to eat. I have to get along with bread and molasses and black coffee for breakfast. It will be so as long as foreign emigration is not checked.

**EFFECT OF TRADE UPON HEALTH.**—(*From a Boilermaker.*)—As boilermakers we consider we are subject to many disadvantages and ills. In the first place our work is done amidst no small degree of noise and din, impossible for us to exchange an idea or an opinion upon anything other than by a few signs relating to our trade. It requires at all times all our physical force, which, when used ten hours a day, has a strong tendency for one great desire, and that a complete rest, and that our constitution demands in order to prepare for our next day's work, continuing so day after day; the result is a weakening of mental faculties because we cannot find time or taste to improve the same. Again, looking at the physical side of the question, we are subject to a partial, if not entire, loss of hearing, and often of eyesight because of flying particles of metal. Personally, I have struggled hard to obtain an education, but having no means to pay for tuition I must resign myself to working hard the rest of my existence.

**UNEQUAL WAGES.**—(*From a Painter in Railroad Shops.*)—The wages here are not equalized as they should be. Some good workmen are only getting \$1.35 to \$1.50 per day, while others who are only inferior workmen get more. Aside from this we are used well and treated kindly. On Saturday we work eight hours, and are paid for ten hours' work. Lately the company have inaugurated an insurance by which we get \$3.00 per week when sick, and at death my family would get \$750; some get \$250, and others \$2,000 at death, according to age and tax.

**EXTRAVAGANCE.**—(*From a Saw-mill Laborer.*)—I would say to the laboring class, quit being extravagant. Most of the men of my age (36) began to do business for ourselves in 1870, when everybody had a little money; some of us thought the times would last forever. We and our wives spent a great deal in *style*, so as to correspond with our rich neighbors. Now, brother laborer, let us stop this kind of work; clothe ourselves warm, work for our employer's interest, not look for noon at nine or ten o'clock, and for six at four or five o'clock, as I have seen some men do. If we will work for our employers' interest, nine out of ten will do all they can for their men. Some men do not think for a moment that the men who have capital invested have a large risk to run. For instance, I have known of millers to lose one hundred dollars on one car load of flour, but the men that did the work got their pay just the same. Let us keep out of debt; lay by ten cents as often as you can. This subject is a large one. If I only had the talent to express my ideas, it might possibly do some laboring men some good. I am satisfied with my present condition as a laborer.

**WORTH OF LABOR.**—(*From a Carpenter.*)—At the present time skilled workmen have to contend with the unskilled so much in most all kinds of work that it is a hard matter for a good workman to get his real worth for labor, and the only remedy that I can see or devise is to grade the pay according to the work performed and class the work the same as in our graded schools. Promote in wages as promotion in work goes on. It is a difficult matter to handle I will admit. The trouble is with the people, as a majority will hire the cheapest man in price, but the dearest man in work.

**NEED OF EDUCATION.**—(*From Foreman in Chair Factory.*)—I commenced my trade at twelve years of age and have not seen the inside of a school-house since. If I had a good common school education I could command \$1,200 per year. I get \$3.00 per day, and have charge of the manufacturing department, employing from forty-two to fifty-five men and boys.

**PAY NOT IN PROPORTION TO WORK.**—(*From a Laborer.*)—I cannot say much as to my

condition, only I feel I am very poorly paid for the amount of work performed. I have horses, cows, carriages and a large garden to take care of, and it takes up a great part of the Sabbath day, for which I get no pay.

**TIME OF PAYING WAGES.**—(*From a Machinist.*)—Wage-workers should be paid ~~at~~ period not longer than two weeks, for the reason that it lets a person have a little cash in their pockets, so if there is a chance to make a bargain he has the money to do it with. This trading by the month places a person on the storekeeper's books, and his month's wages are consumed before he receives them.

**CONTENT WITH CONDITION.**—(*From a Boilermaker.*)—I hope the wage-worker as well as the small and large manufacturer may be well paid for labor and contracts, and that a kind Providence may deal as kindly with them all as he has with me in health, happiness and prosperity. I am ready at all times to work for fair remunerative wages. I deprecate strikes, considering they have a tendency to damage the wage-worker.

**PRICE OF SCHOOL BOOKS.**—(*From a Bricklayer.*)—In regard to school books, it is shameful the price we have to pay for them, as much as for standard works. Continued changing to patronize and help the book stores; you can't even furnish paper to scribble on, but you have got to get it at the book store; a certain kind of pencil and pen must be used; you will see it makes it very expensive. I am in favor of the State furnishing everything in the school; the children would be more careful than if they owned the books. I think more children would go to school than under the present system.

**CHANGING OCCUPATION.**—(*From a Farm Laborer.*)—I think as a class farm hands have the most good of life, but the least money. I am a watchmaker by trade, but times are hard and business dull, so I have taken to farm labor. I have worked for several persons in the last three years, since I left college, and find them all very close; get much and give little.

**CAUSE OF DISCONTENT.**—(*From a Shoemaker in Factory.*)—I say on the whole, without doubt, labor to-day is poorer paid than ever before; more discontent exists, more men in despair, and if a change is not soon devised, trouble must arise. I am no crank; I am no tramp; I am no agitator; I am no lazy fellow who wants to be fed from others' earnings. I am willing to work as most men are, and now it is time something was done. Of course, some of the evils or causes arise from certain economic wrongs which must be changed ere we have any better times. The tariff is one; convict labor is one; a tide of immigration faster than can be assimilated here, is another; monopolies backed by unjust laws, machinery doing work which man used to do, thus production going on faster than consumption; there are other causes.

**SOCIAL OSTRACISM.**—(*From a Laborer.*)—The laboring man is too much oppressed and too much looked down upon. We have many a poor man who works hard and has a good education, and competent of holding almost any position in the higher ranks. But because he is poor and not able to buy himself a position or an office, he is oppressed and looked down upon. But were he rich, though not half so well educated, he could be elected to the best office, just because he could buy his election.

**LABOR AND CAPITAL.**—(*From a Carpenter.*)—The capitalist has the advantage, given him by legislatures and judges. The wage-worker should have an interest in the business which would insure diligence and perfection in the work.

**PROTECTION OF MARRIED MEN.**—(*From a Machinist.*)—There should be some law to compel employers (when reducing help) to discharge a young single man in preference to a poor married man, providing one is as good a mechanic as the other.

**UNITED STATES AND ENGLAND.**—(*From a Laborer.*)—I left England two years ago this month (June) and I must say I did not find America as represented to us in England. I was brought up on a large farm in England and was also clerk for some time in a wholesale cheese and bacon warehouse in Manchester, but on arriving here I was compelled to

go to manual labor. At first I got good pay—\$1.50 and in some cases \$1.75 per day. This last winter I have worked for 75 cents a day part of the time, and the remainder at \$1.00 per day. Now, my opinion is, if this country is to be kept in a flourishing condition, labor must be well and fully paid. The workingmen are the backbone of the country. What is ruining England is the land getting into the hands of a few "land monopolists." Many attribute it to *free trade*, but it is no such thing; wages are considerably higher than they were 20 or 25 years ago, but a man with small means cannot possibly afford to buy land, the average price being about \$300 per acre. Now my idea is this: Pay the workingman well, then they will soon save enough to buy a farm or a house and lot, and they in their turn will be able to employ labor, and so make work plentiful in every way. I would like to touch upon one other subject. I consider your law bad for a workingman to recover his wages. I have been done out of quite a considerable amount. One instance I will mention. Last fall I tended mason for several weeks and he kept putting me off from time to time, saying he had not received payment for his work. Eventually I found he had been paid and spent the money; he was a single man, had no home, consequently I "was left." Now in England we have a judge for certain districts and he holds a court once a month, and in case a man owed me I should summons him before the judge and he would have to swear what wages he was making and what family he had to keep, and according as the judge in his opinion considered him able to pay, he would order it paid by installments, and in case the defendant refused to pay, he is sent to jail unless it is proved *without doubt* that he is unable to pay.

REGULATION OF A SCALE OF WAGES.—(*From a Cooper.*)—A commission should be appointed to act as a mediator between the employer and employé and fix a scale of wages each year; this would prevent strikes.

#### PRICES OF COMMODITIES.

Answers, giving the highest and lowest prices paid during the year ending April 1, 1885, for the principal commodities that make up the larger part of the daily living of the wage-earner, were received from 363 persons, residing in 69 counties. From these answers the average prices paid in each county and in the State are obtained and given in Table No. 14.

TABLE NO. 14.—*Showing Average Retail prices paid for Commodities during the year ending April 1, 1885, in 69 Counties and in the State. Compiled from reports of Wage-Workers.*

| Articles.            | Basis. | In<br>Average Price<br>the State. | Counties. |          |         |         |         |         |         |          |         |          |         |
|----------------------|--------|-----------------------------------|-----------|----------|---------|---------|---------|---------|---------|----------|---------|----------|---------|
|                      |        |                                   | Alcona.   | Allegan. | Alpena. | Antrim. | Baraga. | Barry.  | Bay.    | Berrien. | Branch. | Calhoun. | Cass.   |
| No. Answering.....   | -----  | 363                               | 1         | 8        | 5       | 1       | 1       | 1       | 13      | 7        | 11      | 8        | 4       |
| Flour, wheat.....    | bbl.   | \$ 58 +                           | \$ 6 50   | \$ 5 26  | \$ 5 40 | \$ 4 00 | \$ 6 25 | \$ 5 00 | \$ 5 44 | \$ 5 07  | \$ 5 21 | \$ 5 29  | \$ 5 31 |
| Flour, rye.....      | lb.    | 02¼ +                             | -----     | 01½      | 02¼     | 01½     | -----   | -----   | 02¼     | 02¼      | 01¼     | 02       | 01¼     |
| Corn-meal.....       | lb.    | 02 +                              | -----     | 01½      | 02¼     | 01½     | -----   | -----   | 02¼     | 01¼      | 02      | 01¼      | 01¼     |
| Codfish.....         | lb.    | 09¼ +                             | 15        | 09¼      | -----   | -----   | 10      | -----   | 10      | 09       | 09½     | 09½      | 10      |
| Rice.....            | lb.    | 08½ +                             | 10        | 08½      | 08      | -----   | 10      | 08      | 08½     | 09       | 09      | 09       | 08      |
| Beans.....           | qt.    | 06½ +                             | 10        | 03½      | 07      | 06      | 05      | 03      | 08      | 06½      | 08½     | 06       | 04½     |
| Tea, black.....      | lb.    | 58 +                              | 60        | -----    | 50      | -----   | 75      | -----   | 53      | 50       | 45      | 50       | 60      |
| Tea, green.....      | lb.    | 56 +                              | 60        | -----    | 56      | -----   | 75      | -----   | 52      | 50       | 50      | 57       | 50      |
| Tea, Japan.....      | lb.    | 53 +                              | 60        | 51       | 35      | -----   | 75      | 50      | 47      | 52       | 51      | 53       | 62      |
| Coffee, green.....   | lb.    | 20¼ +                             | -----     | 20       | 20      | -----   | 27      | 18½     | 24      | 19       | 16½     | 18½      | 16½     |
| Coffee, roasted..... | lb.    | 23½ +                             | 22        | 22       | 23      | -----   | 27½     | 22½     | 27      | 23       | 20      | 22       | 21      |
| Cheese.....          | lb.    | 16 +                              | 18        | 15       | 17      | -----   | 18      | 12½     | 16      | 17       | 16      | 14½      | 16½     |
| Butter.....          | lb.    | 22 +                              | 25        | 19½      | 23½     | 22      | 30      | 16½     | 23½     | 18       | 18½     | 20½      | 20      |
| Eggs.....            | doz.   | 19 +                              | 20        | 14½      | 20½     | 20      | 25      | 14      | 21      | 18       | 18      | 17       | 17      |
| Potatoes.....        | bu.    | 46 +                              | 60        | 38       | 36      | 25      | 80      | 25      | 44      | 37       | 40      | 51       | 37      |
| Sugar, brown.....    | lb.    | 06¼ +                             | 08        | 06       | 07      | 08      | 08      | 06      | 07      | 06       | 06½     | 06½      | 06      |
| Sugar, coffee.....   | lb.    | 08 +                              | 09¼       | 07       | 08¼     | -----   | 10      | 08      | 08¼     | 07¼      | 08      | 07       | 07¼     |
| Sugar, granulated..  | lb.    | 09 +                              | 10        | 07½      | 08½     | 10      | 12      | 09½     | 09      | 09½      | 08½     | 08       | 08      |
| Molasses.....        | gal.   | 60 +                              | 80        | 53       | 60      | 70      | 45      | 45      | 66      | 53       | 66      | 61       | 56      |
| Syrup.....           | gal.   | 67 +                              | 75        | 65       | 56      | -----   | 75      | 45      | 75      | 64       | 66      | 73       | 63      |
| Soap, common.....    | lb.    | 07½ +                             | 10        | 08¼      | 07½     | 08      | 10      | 05      | 07½     | 07       | 07½     | 06½      | 06½     |
| Starch.....          | lb.    | 09¼ +                             | 08        | 09       | 10½     | -----   | 10      | 08      | 10      | 10       | 09      | 09½      | 08¼     |
| Milk.....            | qt.    | 06 +                              | 08        | 05       | 06½     | 06      | 10      | 05      | 07      | 05       | 05½     | 05½      | 05      |
| Beef, roast.....     | lb.    | 12 +                              | 15        | 11       | 16½     | 14      | 14      | 05½     | 11½     | 11       | 09½     | 14       | 13      |
| Beef, steak.....     | lb.    | 13¼ +                             | 17        | 12½      | 16½     | 16      | 16      | 12½     | 13      | 13       | 12½     | 14½      | 14      |
| Pork, fresh.....     | lb.    | 11¼ +                             | 15        | 11       | 12      | -----   | 10      | 07      | 11      | 10       | 11½     | 13       | 11      |
| Pork, salted.....    | lb.    | 10¼ +                             | 12½       | 10½      | 09½     | -----   | 10      | 08      | 10      | 10       | 11      | 12       | 11½     |
| Hams, smoked.....    | lb.    | 14 +                              | 16        | 12½      | 15      | -----   | 15      | 10      | 14½     | 13½      | 14      | 13       | 16      |
| Lard.....            | lb.    | 11¼ +                             | 12        | 11¼      | 12½     | -----   | 12      | -----   | 11½     | 13       | 12½     | 12½      | 12      |
| Coal, soft.....      | ton.   | 4 93 +                            | 4 40      | -----    | -----   | -----   | -----   | 4 00    | 4 50    | 4 25     | 3 81    | -----    | -----   |
| Coal, hard.....      | ton.   | 7 37 +                            | 8 50      | 7 20     | 7 50    | -----   | -----   | 6 25    | 7 50    | 6 75     | 7 12    | -----    | -----   |
| Wood, stove size.... | cord.  | 1 50 +                            | 1 75      | 1 52     | 1 37    | 1 00    | 2 50    | 1 37    | 1 58    | 1 71     | 1 73    | 2 05     | 1 67    |
| Calico, print.....   | yd.    | 07 +                              | 08        | 06       | 07      | 09      | 09      | 05½     | 07½     | 07       | 07      | 06½      | 06      |
| Sheeting, unbl'ch'd. | yd.    | 08½ +                             | -----     | 07       | 08      | -----   | 12½     | 06½     | 08½     | 08       | 07½     | 08       | 07½     |
| Sheeting, bleached.. | yd.    | 10¼ +                             | -----     | 09       | -----   | -----   | 15      | -----   | 10      | 10½      | 09      | 09       | 09      |
| Shirting, bleached.. | yd.    | 12 +                              | 16        | 11½      | -----   | -----   | 15      | 12      | 11½     | 10       | 09½     | 10       | 10      |
| Shirting, unbl'ch'd. | yd.    | 09¼ +                             | 14        | 10       | -----   | 11      | -----   | -----   | 09½     | 08       | 08      | 09½      | 07½     |



TABLE No. 14.—Continued.

| Articles.              | Basis. | Counties.  |         |          |           |         |         |         |          |               |         |            |           |
|------------------------|--------|------------|---------|----------|-----------|---------|---------|---------|----------|---------------|---------|------------|-----------|
|                        |        | Cheboygan. | Clare.  | Clinton. | Crawford. | Delta.  | Eaton.  | Emmet.  | Genesee. | Gr. Traverse. | Graiot. | Hillsdale. | Houghton. |
| No. Answering.....     |        | 9          | 1       | 2        | 2         | 1       | 4       | 2       | 4        | 5             | 6       | 3          | 3         |
| Flour, wheat.....      | bbl.   | \$ 6 00    | \$ 7 65 | \$ 5 97  | \$ 5 75   | \$ 6 50 | \$ 5 39 | \$ 5 58 | \$ 4 87  | \$ 5 61       | \$ 4 93 | \$ 4 75    | \$ 7 00   |
| Flour, rye.....        | lb.    | 05         |         |          |           |         |         |         |          |               |         |            | 05        |
| Corn-meal.....         | lb.    | 03         |         | 01½      | 02½       |         | 01½     | 02      | 01½      | 01½           | 01½     | 01½        | 03½       |
| Codfish.....           | lb.    | 08½        | 09      |          | 10        |         | 09½     | 08      | 08½      | 08½           | 08½     | 09         | 09        |
| Rice.....              | lb.    | 10         | 10      |          | 10        |         | 08½     |         | 08½      | 08            | 08½     | 08         | 10        |
| Beans.....             | qt.    | 08         | 08      | 04       | 04        |         | 05½     | 05      | 05       | 05            | 05      | 08         | 06        |
| Tea, black.....        | lb.    | 59         |         |          |           |         | 77      | 50      | 75       | 60            | 45      | 50         | 80        |
| Tea, green.....        | lb.    | 50         |         | 50       |           |         | 75      | 50      |          | 56            | 48      | 60         | 67        |
| Tea, Japan.....        | lb.    | 59         | 50      | 62       | 50        | 50      | 52      |         | 50       | 53            | 46      | 57         | 60        |
| Coffee, green.....     | lb.    | 22         |         |          |           |         | 16½     |         | 18½      | 20            | 18½     |            | 25        |
| Coffee, roasted.....   | lb.    | 25         | 21½     | 14       | 25        | 37      | 21      | 20      | 22       | 20            | 24½     | 23         | 35        |
| Cheese.....            | lb.    | 19         | 18      | 15       | 17½       | 19½     | 14      |         | 13       | 17½           | 15      | 15½        | 18½       |
| Butter.....            | lb.    | 26½        | 25      | 21½      | 23½       | 30      | 18      | 22½     | 17       | 24            | 17      | 24         | 29½       |
| Eggs.....              | doz.   | 23         | 25      | 16½      | 23½       | 22      | 16      | 15      | 16       | 19½           | 13      | 20         | 26        |
| Potatoes.....          | bu.    | 46         | 67      | 33       | 41        | 87      | 40      | 27      | 35       | 42            | 47      | 50         | 62        |
| Sugar, brown.....      | lb.    | 07½        |         | 06       | 07½       |         | 05½     | 05½     | 05       | 06½           | 06½     | 05½        | 08½       |
| Sugar, coffee.....     | lb.    | 09         | 09      | 07       | 08½       |         | 08      | 07      | 06½      | 07½           | 07½     | 07         | 09        |
| Sugar, granulated..... | lb.    | 10         |         |          | 10        | 12½     | 07½     | 08½     | 08       | 08            | 09      | 08½        | 07½       |
| Molasses.....          | gal.   | 66         |         | 87       | 50        |         | 68      | 60      | 63       | 60            | 58      | 80         | 60        |
| Syrup.....             | gal.   | 70         | 45      | 57       | 73        |         | 73      |         | 60       | 77            | 64      | 73         | 97        |
| Soap, common.....      | lb.    | 08½        | 10      | 07½      | 09        |         | 06½     | 09      | 06½      | 07½           | 06½     | 08½        | 08½       |
| Starch.....            | lb.    | 10½        | 10      | 10       | 09        |         | 08      | 10      | 09½      | 10            | 09½     | 10         | 10½       |
| Milk.....              | qt.    | 07½        | 08      | 05½      | 07        | 10      | 05      | 06      | 04½      | 06            | 04½     | 05½        | 10        |
| Beef, roast.....       | lb.    | 15         | 11      | 09½      |           |         | 12      | 11      | 10½      | 11½           | 08½     | 12         | 14½       |
| Beef, steak.....       | lb.    | 16         | 11½     | 12½      | 14        | 17½     | 11      | 15      | 12½      | 13            | 13      | 14         | 15        |
| Pork, fresh.....       | lb.    | 12         | 10½     | 09½      | 10        | 17½     | 11      | 09½     | 10½      | 12½           | 11½     | 10½        | 15        |
| Pork, salt.....        | lb.    | 10½        | 10      | 13       | 09        |         | 10      | 10½     | 10       | 09½           | 10½     | 09½        | 09½       |
| Hams, smoked.....      | lb.    | 16         | 13      | 12       | 14        | 16      | 14      | 16      | 11       | 15            | 11      | 15         | 16        |
| Lard.....              | lb.    | 11½        | 11      | 12½      | 10½       |         | 12      | 11      | 12       | 13            | 11      | 11½        | 14        |
| Coal, soft.....        | ton.   | 4 37       |         |          |           |         | 4 00    |         |          |               |         | 4 54       |           |
| Coal, hard.....        | ton.   | 6 00       | 10 00   | 6 75     |           | 7 75    | 7 25    |         |          | 8 50          |         | 7 18       | 7 02      |
| Wood, stove size.....  | cord.  | 2 06       | 1 20    | 1 71     | 1 00      |         | 1 43    | 1 12    | 1 33     | 1 39          | 95      | 2 37       | 2 14      |
| Calico, prints.....    | yd.    | 09         | 07      | 06       | 08        |         | 07½     | 07      | 05½      | 05½           | 06½     | 07½        | 06½       |
| Sheeting, unbleached   | yd.    | 09½        | 09      | 08       | 10        |         | 08½     | 08      | 08½      | 09½           | 10      | 08         | 11        |
| Sheeting, bleached...  | yd.    | 12         | 11      | 10       | 10        |         | 08½     | 12      | 12       | 12½           | 09½     | 10½        | 12        |
| Shirting, bleached.... | yd.    | 11½        |         | 15       | 11        |         | 08½     | 13½     | 13       | 10            | 10½     | 11         | 12        |
| Shirting, unbleached.  | yd.    | 09½        |         | 14       | 11        |         | 06½     | 11      | 10½      | 09            | 08½     | 07½        | 10        |

TABLE No. 14.—Continued.

| Articles.            | Basis. | Counties. |         |         |         |           |          |            |           |         |           |         |         |
|----------------------|--------|-----------|---------|---------|---------|-----------|----------|------------|-----------|---------|-----------|---------|---------|
|                      |        | Huron.    | Ingham. | Ionia.  | Iosco.  | Isabella. | Jackson. | Kalamazoo. | Kalkaska. | Kent.   | Keweenaw. | Lake.   | Lapeer. |
| No. Answering.....   | -----  | 7         | 2       | 15      | 12      | 1         | 8        | 5          | 2         | 12      | 1         | 4       | 9       |
| Flour, wheat.....    | bbl.   | \$ 5 68   | \$ 4 80 | \$ 5 25 | \$ 5 97 | \$ 4 68   | \$ 5 45  | \$ 5 18    | \$ 5 10   | \$ 5 67 | \$ 7 00   | \$ 5 89 | \$ 5 12 |
| Flour, rye.....      | lb.    | 02        |         |         |         |           |          |            |           | 03      | 03        |         | 01      |
| Corn-meal.....       | lb.    | 02        | 01      | 01½     | 02      | 02        | 02½      | 02         | 02        | 01½     | 05        | 02      | 01½     |
| Codfish.....         | lb.    | 09½       |         | 08½     | 09½     | 11        | 09½      | 07         | 07½       | 09      | 08        |         | 08½     |
| Rice.....            | lb.    | 08        | 05      | 08      | 09      | 10        | 08½      | 09         | 10        | 08      | 10        | 08      | 09½     |
| Beans.....           | qt.    | 04½       | 06      | 05½     | 06      | 10        | 08½      | 07         | 03        | 06      | 08        | 09½     | 06½     |
| Tea, black.....      | lb.    | 61        |         | 50      | 75      |           | 50       | 52         |           | 54      | 1 00      | 75      | 58      |
| Tea, green.....      | lb.    | 44        | 55      | 51      | 58      | 50        | 52       | 62         | 47        | 56      | 1 00      | 59      | 52      |
| Tea, Japan.....      | lb.    | 48        | 58      | 51      | 58      |           | 52       | 58         |           | 52      | 60        | 50      | 48      |
| Coffee, green.....   | lb.    | 19        |         | 21      | 23½     | 19        | 23       | 15½        | 15        |         | 16        |         | 17½     |
| Coffee, roasted..... | lb.    | 20        | 26      | 24      | 30      | 22½       | 26       | 23½        | 19½       | 23½     | 35        | 21      | 22      |
| Cheese.....          | lb.    | 15        | 13½     | 15      | 16      | 16        | 15       | 13         | 17½       | 16½     | 13½       | 16½     | 15      |
| Butter.....          | lb.    | 20        | 18      | 19      | 24      | 16        | 22       | 19         | 18½       | 22      | 30        | 25½     | 16½     |
| Eggs.....            | doz.   | 17        | 12      | 15      | 23      | 23½       | 19½      | 12½        | 18        | 18½     | 25        | 25½     | 14      |
| Potatoes.....        | bu.    | 50        | 49      | 44      | 54      | 32        | 50       | 37         | 30        | 39      | 85        | 55      | 36      |
| Sugar, brown.....    | lb.    | 07        | 06½     | 06½     | 07      | 06        | 06½      | 06½        | 07½       | 06½     | 08        | 07½     | 06½     |
| Sugar, coffee.....   | lb.    | 09        | 08      | 07½     | 08½     |           | 08       | 07         | 08        | 08      | 08        | 09      | 07      |
| Sugar, granulated..  | lb.    | 10        | 07½     | 09½     | 10      | 08½       | 08       | 08         | 10        | 08½     | 10        | 10½     | 09½     |
| Molasses.....        | gal.   | 59        | 51      | 63      | 57      | 60        | 57       | 63         |           | 62      | 55        | 60      | 55      |
| Syrup.....           | gal.   | 49        | 59      | 80      | 71      | 50        | 69       | 72         | 56        | 73      | 62        | 82      | 50      |
| Soap, common.....    | lb.    | 07½       | 08      | 07½     | 07½     | 10        | 06       | 07½        | 10        | 07      | 07½       | 08½     | 07½     |
| Starch.....          | lb.    | 10½       | 10      | 09      | 09½     | 15        | 09       | 08         | 10        | 08      | 12½       | 10½     | 10½     |
| Milk.....            | qt.    | 05        | 05½     | 05½     | 07½     | 05        | 05       | 05½        | 07        | 06½     | 10        | 06½     | 05      |
| Beef, roast.....     | lb.    | 12        | 08      | 09½     | 15      | 12        | 11½      | 09½        |           | 11½     | 17        | 08½     | 11      |
| Beef, steak.....     | lb.    | 13        | 14      | 13      | 15      | 12½       | 12½      | 13         | 10½       | 12      | 17        | 12      | 13      |
| Pork, fresh.....     | lb.    | 10        | 06      | 13      | 13      | 10½       | 10½      | 11½        | 10        | 11      | 18        | 11½     | 10      |
| Pork, salted.....    | lb.    | 09½       | 10½     | 11      | 10½     | 08½       | 10½      | 11         | 10½       | 10½     | 10        | 11½     | 11      |
| Ham, smoked.....     | lb.    | 14½       | 13      | 13½     | 16      | 12        | 14½      | 14½        |           | 15½     | 16        | 14      | 12½     |
| Lard.....            | lb.    | 13        | 12      | 11      | 10½     | 12        | 10½      | 12½        | 12½       | 11      | 12½       | 12½     | 13      |
| Coal, soft.....      | ton.   |           | 5 00    | 5 75    |         |           | 4 00     | 5 50       |           | 5 50    | 6 00      |         | 7 00    |
| Coal, hard.....      | ton.   | 8 00      |         | 6 70    | 7 25    |           | 7 22     | 6 63       |           | 7 17    | 10 00     |         | 7 50    |
| Wood, stove size.... | cord.  | 1 66      | 1 56    | 1 55    | 1 38    | 1 05      | 2 57     | 1 82       | 1 19      | 1 84    | 2 50      | 1 17    | 1 09    |
| Calico, prints.....  | yd.    | 07        | 05½     | 06½     | 07½     |           | 06½      | 06½        | 06½       | 06½     | 06½       | 07      | 07      |
| Sheeting, unbl'ch'd. | yd.    | 08½       |         | 08      | 09      |           | 07       | 08         | 08        | 07½     |           | 10      | 07      |
| Sheeting, bleached.  | yd.    | 11        | 07      | 10      | 12      |           | 09       | 09½        | 09½       | 09      |           | 12½     | 10      |
| Shirting, bleached.. | yd.    | 10½       |         | 11      | 12      |           | 11       | 10         | 13½       | 09½     |           | 16½     | 12½     |
| Shirting, unbl'ch'd. | yd.    | 10        |         | 08      | 11      |           | 09       | 09½        |           | 08½     |           |         | 10      |

TABLE No. 14.—Continued.

| Articles.                  | Basis. | Counties. |          |             |           |         |           |            |         |          |            |          |            |
|----------------------------|--------|-----------|----------|-------------|-----------|---------|-----------|------------|---------|----------|------------|----------|------------|
|                            |        | Leelanaw. | Lenawee. | Livingston. | Mackinac. | Macomb. | Manistee. | Marquette. | Mason.  | Mecosta. | Menominee. | Midland. | Missaukee. |
| No. answering .....        | .....  | 1         | 8        | 1           | 3         | 3       | 10        | 2          | 9       | 9        | 1          | 12       | 3          |
| Flour, wheat .....         | bbl.   | \$ 4 96   | \$ 5 25  | \$ 5 92     | \$ 5 31   | \$ 6 02 | \$ 6 31   | \$ 5 95    | \$ 5 68 | \$ 7 00  | \$ 5 87    | \$ 5 86  |            |
| Flour, rye .....           | lb.    |           |          |             |           | 02½     |           | 02¾        |         |          |            |          |            |
| Corn meal .....            | lb.    | 02½       | 01½      |             | 03        | 02      | 03¼       |            | 02      | 01½      | 05         | 02½      | 02         |
| Codfish .....              | lb.    |           | 09¾      |             | 09        | 09      | 09½       |            | 09½     | 10       | 12½        | 10       | 09½        |
| Rice .....                 | lb.    | 09        | 09¾      |             | 10        | 07      | 09¾       | 11¾        | 08      | 09       | 10         | 10       | 07¾        |
| Beans .....                | qt.    |           | 06       |             | 09        | 05      | 08¾       | 10         | 05½     | 06¾      |            | 06       | 05½        |
| Tea, black .....           | lb.    |           | 52       |             | 68        |         | 54        | 72         | 49      | 50       | 62         | 55       | 30         |
| Tea, green .....           | lb.    | 65        | 52       |             | 53        |         | 46        | 93         | 56      | 62       | 62         | 53       | 50         |
| Tea, Japan .....           | lb.    |           | 54       | 50          | 60        | 57      | 49        | 80         | 52      | 63       | 62         | 46       | 44         |
| Coffee, green .....        | lb.    |           | 18¾      |             | 22        |         | 21        | 27½        | 22      | 23       | 29         | 27       | 17         |
| Coffee, roasted .....      | lb.    | 23½       | 22       | 21¾         | 25½       | 18½     | 21        | 25         | 24      | 24       | 29         | 25       | 20         |
| Cheese .....               | lb.    | 24        | 14       | 15½         | 16        | 14      | 16¾       | 23         | 15½     | 16¾      | 18         | 16       | 17½        |
| Butter .....               | lb.    | 26        | 19       | 19¾         | 25½       | 23      | 23        | 33         | 23      | 23½      | 30         | 24       | 23         |
| Eggs .....                 | doz.   | 12        | 16¾      | 17¾         | 20        | 19      | 19¾       | 28         | 21      | 19       | 26         | 18       | 18¾        |
| Potatoes .....             | bu.    | 45        | 47       | 42          | 57        | 54      | 45        | 82         | 42      | 62       | 65         | 43       | 42         |
| Sugar, brown .....         | lb.    | 09        | 06       | 05¾         | 08        | 06¾     | 07        | 09¾        | 07      | 07¾      | 10         | 07¾      | 06         |
| Sugar, coffee .....        | lb.    | 10¾       | 07       |             | 09        | 06¾     | 07¾       | 09¾        | 08¾     | 09       | 12¾        | 09       | 06¾        |
| Sugar, granulated .....    | lb.    |           | 08       | 07¾         | 09¾       | 08¾     | 09¾       | 11         | 09      | 10       | 14         | 10¾      | 07¾        |
| Molasses .....             | gal.   |           | 56       | 62          | 80        | 47      | 47        | 53         | 62      | 58       | 77         | 60       | 47         |
| Syrup .....                | gal.   | 70        | 72       |             | 60        | 47      | 60        | 82         | 65      | 63       |            | 62       | 60         |
| Soap, common .....         | lb.    | 09        | 08       | 08          | 08        | 06      | 07½       | 07         | 08      | 08¾      | 10         | 07¾      | 08         |
| Starch .....               | lb.    | 10        | 09¾      | 10          | 11        | 07      | 10¾       | 09         | 10      | 10¾      | 12¾        | 09       | 09¾        |
| Milk .....                 | qt.    |           | 05       | 04¾         | 07¾       | 05      | 08        | 10         | 06¾     | 05¾      | 10         | 05¾      | 07         |
| Beef, roast .....          | lb.    | 08        | 10¾      | 11¾         | 14        | 11      | 13        | 16         | 11      | 11¾      | 16         | 10       | 12         |
| Beef, steak .....          | lb.    | 11        | 13       | 11¾         | 14        | 13      | 13        | 15¾        | 13¾     | 14¾      | 17         | 12¾      | 13¾        |
| Pork, fresh .....          | lb.    | 12        | 09¾      | 11¾         | 13        | 11      | 12¾       | 15¾        | 11      | 11¾      | 15¾        | 12       | 13         |
| Pork, salt .....           | lb.    | 11        | 11       | 10          | 10½       | 10      | 10¾       | 11¾        | 10¾     | 11       | 11         | 10¾      | 10¾        |
| Ham, smoked .....          | lb.    | 14        | 14¾      | 16¾         | 15        | 13      | 13¾       | 15¾        | 14      | 15       | 19         | 15¾      | 13         |
| Lard .....                 | lb.    | 17        | 12¾      |             | 11¾       | 09¾     | 11¾       | 16¾        | 10¾     | 12¾      | 15         | 12       | 10         |
| Coal, soft .....           | ton.   |           | 3 67     |             |           |         |           |            |         |          | 7 50       |          |            |
| Coal, hard .....           | ton.   |           | 6 37     |             |           | 6 50    | 8 00      |            | 7 50    | 7 50     | 8 25       | 7 37     |            |
| Wood, stove size .....     | cd.    | 1 00      | 1 69     | 1 37        | 2 08      | 1 71    | 1 58      | 2 18       | 1 16    | 1 05     |            | 1 08     | 1 12       |
| Calico, prints .....       | yd.    | 08¾       | 06       | 06          | 09        | 07      | 07        | 07¾        | 07¾     | 07¾      | 04¾        | 08       | 07¾        |
| Sheeting, unbleached ..... | yd.    | 09¾       | 07       | 07¾         | 10        | 08¾     | 09¾       | 13¾        | 09¾     | 09¾      | 13         | 08       | 08¾        |
| Sheeting, bleached .....   | yd.    | 12        | 10       |             | 12        | 10      | 11        | 11¾        | 11      | 11       |            | 10¾      | 09¾        |
| Shirting, bleached .....   | yd.    |           | 10¾      |             | 15        | 17      | 12        | 09         | 13      | 13¾      |            | 12¾      |            |
| Shirting, unbleached ..... | yd.    |           | 08       |             |           | 12¾     | 10        | 09         |         | 13¾      |            | 10¾      |            |

TABLE No. 14.—Continued.

| Articles.                 | Basis. | Counties. |           |              |           |          |          |         |         |         |         |         |
|---------------------------|--------|-----------|-----------|--------------|-----------|----------|----------|---------|---------|---------|---------|---------|
|                           |        | Monroe.   | Montcalm. | Montmorency. | Muskegon. | Newaygo. | Oakland. | Oceana. | Ogemaw. | Oscoda. | Oscoda. | Otsego. |
| No. answering.....        |        | 4         | 12        | 1            | 9         | 4        | 1        | 3       | 1       | 3       | 1       | 3       |
| Flour, wheat.....         | bbl.   | \$ 49     | \$ 06     | \$ 50        | \$ 89     | \$ 37    | \$ 00    | \$ 68   | \$      | \$ 39   | \$ 25   | \$ 88   |
| Flour, rye.....           | lb.    |           |           |              |           |          |          |         |         |         |         |         |
| Corn meal.....            | lb.    | 01½       | 02        | 02½          | 02        | 02½      |          | 01½     |         | 01½     | 02      | 01½     |
| Codfish.....              | lb.    | 09½       | 10        | 08           | 09        |          | 08       | 10      | 08      | 10      | 08      | 09      |
| Rice.....                 | lb.    | 09        | 08½       |              | 08        | 09       |          | 10      | 08      | 07½     | 10      | 10      |
| Beans.....                | qt.    | 03½       | 05½       | 10           | 07½       | 06       |          | 08½     | 05      | 05½     | 09      | 12½     |
| Tea, black.....           | lb.    |           |           | 50           | 66        | 50       |          | 50      | 45      | 87      |         |         |
| Tea, green.....           | lb.    | 63        | 51        |              | 54        | 40       |          | 50      |         | 50      | 50      |         |
| Tea, Japan.....           | lb.    | 53        | 53        |              | 52        | 50       | 40       | 50      |         | 63      | 50      | 55      |
| Coffee, green.....        | lb.    | 25        | 21½       | 20           | 24        |          |          | 19      |         | 20      | 16      |         |
| Coffee, roasted.....      | lb.    | 22        | 21½       | 25           | 25        | 20½      | 20       | 21½     | 20      | 20½     | 25      | 28½     |
| Cheese.....               | lb.    | 15½       | 16½       | 18           | 15½       | 16½      | 12       | 16½     | 15½     | 15½     | 22½     | 17½     |
| Butter.....               | lb.    | 18½       | 20        | 25           | 25        | 21       | 15       | 27      | 25      | 23      | 27½     | 26      |
| Eggs.....                 | doz.   | 14        | 16½       | 20           | 20        | 15       | 13       | 18      | 22½     | 18      | 25      | 22      |
| Potatoes.....             | bu.    | 49        | 43        | 50           | 58        | 53       | 30       | 52      | 57      | 57      | 50      | 34      |
| Sugar, brown.....         | lb.    | 05½       | 07        | 08           | 06½       | 06½      | 05       | 07½     | 07      | 06      | 08      | 07      |
| Sugar, coffee.....        | lb.    | 07        | 08½       | 09           | 08½       | 08½      |          | 09      |         | 07      | 09      | 07½     |
| Sugar, granulated.....    | lb.    | 09½       | 09        |              | 09½       | 10½      | 06½      | 10      | 10      | 09      | 10½     | 08½     |
| Molasses.....             | gal.   | 62        | 51        | 60           | 52        | 55       | 50       | 70      | 40      | 65      |         | 51      |
| Syrup.....                | gal.   | 60        | 65        |              | 64        | 98       |          | 73      | 50      | 1 25    | 60      | 91      |
| Soap, common.....         | lb.    | 07½       | 07½       | 08           | 08        | 08       | 10       | 08½     | 08      | 06½     | 08      | 07½     |
| Starch.....               | lb.    | 08        | 10        | 10           | 08        | 09½      | 08       | 10      | 10      | 10      |         | 10      |
| Milk.....                 | qt.    | 05        | 05½       |              | 06½       | 06       | 05       | 06½     | 06½     | 05½     |         | 05½     |
| Beef, roast.....          | lb.    | 12        | 09        |              | 11        | 11       | 10       | 10      | 13½     | 12      | 08      | 10      |
| Beef, steak.....          | lb.    | 13        | 12        |              | 13½       | 14½      | 12½      | 12      | 13½     | 14      | 08      | 16      |
| Pork, fresh.....          | lb.    | 10        | 10        |              | 12        | 10½      | 11       | 10      | 12      | 11½     | 08      | 12½     |
| Pork, salted.....         | lb.    | 11½       | 10½       | 09           | 10        | 12½      | 12       | 11½     | 11      | 10½     | 11½     | 11      |
| Ham, smoked.....          | lb.    | 13½       | 13        | 13           | 15        | 14       | 12½      | 16      | 13½     | 12½     | 17      | 12      |
| Lard.....                 | lb.    | 12        | 12½       | 11           | 11        | 12       | 10       | 13½     | 15      | 09      | 13½     | 11½     |
| Coal, soft.....           | ton.   |           |           |              | 6 08      |          |          |         |         |         |         |         |
| Coal, hard.....           | ton.   | 7 25      |           |              | 7 93      |          |          | 7 00    |         |         |         |         |
| Wood, stove size.....     | cd.    | 1 62      | 1 11      | 1 50         | 1 37      | 1 01     | 1 75     | 1 12    | 1 25    | 1 26    | 1 25    | 1 32    |
| Calico, prints.....       | yd.    | 06½       | 07        | 07½          | 08        | 09½      | 05       | 06½     | 09      | 05      | 07      | 08      |
| Sheeting, unbleached..... | yd.    | 08½       | 07½       |              | 09        | 08       | 08       | 08½     |         | 07½     | 09      | 08½     |
| Sheeting, bleached.....   | yd.    | 09        | 11        | 08           | 11        | 11       | 10       | 10½     |         | 09½     | 09½     | 13      |
| Shirting, bleached.....   | yd.    |           | 11        | 10           | 14½       | 10       |          | 10      |         | 15      | 18      | 12½     |
| Shirting, unbleached..... | yd.    |           | 09        |              | 09        | 08       | 08       | 09      |         |         |         | 09      |

TABLE No. 14.—Continued.

| Articles.                 | Basis. | Counties. |          |          |             |            |             |          |            |            |        |          |
|---------------------------|--------|-----------|----------|----------|-------------|------------|-------------|----------|------------|------------|--------|----------|
|                           |        | Ottawa.   | Saginaw. | Sanilac. | Shiawassee. | St. Clair. | St. Joseph. | Tuscola. | Van Buren. | Washtenaw. | Wayne. | Wexford. |
|                           |        | 4         | 10       | 4        | 4           | 26         | 5           | 3        | 1          | 9          | 6      | 7        |
| No. answering.....        |        |           |          |          |             |            |             |          |            |            |        |          |
| Flour, wheat.....         | bbl.   | \$ 36     | \$ 22    | \$ 34    | \$ 66       | \$ 52      | \$ 33       | \$ 12    | \$ 25      | \$ 63      | \$ 58  | \$ 64    |
| Flour, rye.....           | lb.    | 03        | 01½      | 01½      | 02½         | 02½        | 02          | 01½      | 01½        | 02         | 02     | 02       |
| Corn-meal.....            | lb.    | 01½       | 01½      | 02       | 01½         | 02         | 02          | 01½      | 01½        | 02         | 02     | 02       |
| Codfish.....              | lb.    | 09½       | 09½      | 09       | 09          | 11         | 10          | 09       | 09         | 09         | 09     | 10       |
| Rice.....                 | lb.    | 07½       | 09       | 06½      | 09          | 08½        | 08          | 09       | 09         | 08         | 09     | 07       |
| Beans.....                | qt.    | 07        | 08½      | 02       | 07          | 08½        | 06½         | 05       | 05½        | 08         | 08     | 08½      |
| Tea, black.....           | lb.    | 61        | 65       | 50       | 56          | 56         | 56          | 56       | 69         | 42         | 42     | 72       |
| Tea, green.....           | lb.    | 63        | 57       | 50       | 50          | 48         | 55          | 50       | 55         | 55         | 53     | 53       |
| Tea, Japan.....           | lb.    | 47        | 57       | 37       | 53          | 48         | 55          | 50       | 62         | 58         | 40     | 62       |
| Coffee, green.....        | lb.    | 20        | 23½      | 20       | 13          | 21         | 19½         | 20       | 20         | 20         | 20     | 20       |
| Coffee, roasted.....      | lb.    | 22        | 23       | 25       | 22          | 28         | 20          | 23       | 23         | 27         | 26     | 26       |
| Cheese.....               | lb.    | 16        | 19       | 12       | 16          | 14½        | 16½         | 13       | 15         | 15½        | 15     | 15       |
| Butter.....               | lb.    | 26½       | 23       | 14       | 20          | 21         | 16½         | 19       | 19         | 23         | 23     | 23       |
| Eggs.....                 | doz.   | 24        | 20       | 14       | 16          | 18½        | 14          | 20       | 16         | 19         | 19½    | 19½      |
| Potatoes.....             | bu.    | 45        | 50       | 41       | 37          | 44         | 45          | 31       | 32         | 39         | 46     | 37       |
| Sugar, brown.....         | lb.    | 06        | 07       | 07       | 08          | 06½        | 06½         | 07½      | 06½        | 06½        | 06½    | 06½      |
| Sugar, coffee.....        | lb.    | 07        | 08½      | 08       | 07½         | 07½        | 08½         | 09       | 08         | 07½        | 08½    | 07½      |
| Sugar, granulated.....    | lb.    | 07½       | 09½      | 08       | 10          | 09         | 08½         | 08       | 11         | 08½        | 07½    | 08½      |
| Molasses.....             | gal.   | 64        | 71       | 55       | 65          | 60         | 70          | 45       | 64         | 77         | 62     | 62       |
| Syrup.....                | gal.   | 62        | 68       | 50       | 62          | 60         | 73          | 71       | 83         | 67         | 71     | 71       |
| Soap, common.....         | lb.    | 08        | 07       | 06       | 07½         | 07½        | 06½         | 06½      | 07         | 06         | 08     | 08       |
| Starch.....               | lb.    | 09        | 09       | 09       | 08½         | 09         | 10          | 10       | 09         | 09         | 08½    | 10       |
| Milk.....                 | qt.    | 05½       | 06       | 05       | 05          | 05½        | 05          | 05½      | 05         | 06½        | 06½    | 06½      |
| Beef, roast.....          | lb.    | 10        | 13       | 09       | 10½         | 12½        | 15          | 09       | 11         | 11         | 16     | 12½      |
| Beef, steak.....          | lb.    | 13        | 13½      | 10       | 12½         | 13½        | 13½         | 13       | 14         | 13         | 13     | 13       |
| Pork, fresh.....          | lb.    | 09        | 11½      | 07½      | 12          | 12         | 12          | 11½      | 11         | 09         | 11½    | 11½      |
| Pork, salt.....           | lb.    | 11½       | 09½      | 10       | 11          | 10         | 11          | 10       | 12½        | 11         | 11½    | 10½      |
| Ham, smoked.....          | lb.    | 12        | 13½      | 11½      | 14          | 14         | 15          | 14       | 13         | 14         | 14     | 15½      |
| Lard.....                 | lb.    | 12½       | 11½      | 10       | 12½         | 12½        | 12          | 09       | 13½        | 10½        | 12½    | 11       |
| Coal, soft.....           | ton.   | 5 12      | 3 00     | 4 55     | 4 75        | 5 98       | 7 06        | 6 48     | 4 08       | 4 37       | 7 50   | 7 50     |
| Coal, hard.....           | ton.   | 6 50      | 5 98     | 7 06     | 6 48        | 4 08       | 4 37        | 7 50     | 6 31       | 9 00       | 9 00   | 9 00     |
| Wood, stove size.....     | cd.    | 1 12      | 1 79     | 1 00     | 1 12        | 2 12       | 1 81        | 1 22     | 1 31       | 1 92       | 1 50   | 1 31     |
| Calico, print.....        | yd.    | 06        | 07½      | 07       | 07          | 06½        | 06          | 05½      | 06½        | 06½        | 07½    | 07½      |
| Sheeting, unbleached..... | yd.    | 07½       | 09       | 08½      | 08          | 07½        | 07½         | 07½      | 08         | 08½        | 07½    | 07½      |
| Sheeting, bleached.....   | yd.    | 09        | 11       | 12       | 09½         | 09         | 09          | 09       | 09         | 11         | 11     | 09½      |
| Shirting, bleached.....   | yd.    | 13        | 12       | 14       | 13          | 10½        | 08½         | 12       | 12         | 13½        | 13½    | 12       |
| Shirting, unbleached..... | yd.    | 11        | 09       | 10       | 10          | 09½        | 07½         | 09       | 09½        | 09½        | 10     | 10       |

---

---

PART IV.

---

WAGES AND WAGE-EARNERS.]

RELATING TO

CHAPTER I.—FARM LABOR.

CHAPTER II.—RAILROAD EMPLOYES.

CHAPTER III.—MANUFACTURING AND OTHER BUSINESS INTER-  
ESTS OF THE STATE.

---

---



## PART IV.

---

### CHAPTER I.

#### FARM LABOR.

##### WAGES PAID FOR FARM LABOR IN MICHIGAN IN 1885.

To give an estimate of the number of persons employed as regular hands, tenants, or haying and harvest hands by the farmers of Michigan during the year 1885, would be of no value unless substantiated by statistics gathered from canvassers.

To make a canvass of the State in the agricultural interests alone, or in connection with other interests, would necessitate a simultaneous movement by agents in every town in the State, in order that the roving class in harvest time should appear but once in the tables. The limited appropriation at the disposal of this Bureau would not permit such an expense.

To give, however, the wages paid for farm labor in every town where such labor is employed has been attempted, and with a very fair result.

On the 8th day of September, 1885, a circular note was addressed to 1,016 Supervisors, in 75 counties of the State, requesting them to see at least four farmers living in different sections of the town, and from each one learn what wages were paid to regular farm hands, with and without board; wages to tenants, with rent, use of land and cow, and wages to harvest hands, with and without board, together with the average number of months in the year that farm hands were employed. With this circular was sent a postal card with return address and blank forms for answers to the questions.

No circulars were sent to Supervisors of wards in cities, nor to the Counties of Manitou, Montmorency, Isle Royal, Keweenaw, or Oscoda. Neither were any sent to the new Counties of Alger or Iron, but were sent to the counties from which the last two were made.

The returns, from the Supervisors that reported at all, were, to the number of 400, in the hands of the Commissioner by October 1; the balance, or 213, were received by November 1, at which time the work of tabulating commenced. Since that time to December 24 five other towns have reported; they do not change the face of the tables in any degree, and are counted as not reporting. The failure of Supervisors to make any report shows a lack of interest in the subject inquired into by the Bureau, which, to the extent that it occurred in localities known for their agricultural wealth, is not easily accounted for. A



return of the postal card, if with only a reason for not making a report, would have appeared more like a business transaction than the withholding of it. The following showing of number of towns reporting and not reporting is arranged by Congressional Districts, as the more readily conveying the locality of agricultural pursuits.

TABLE NO. 15—*Showing by Congressional Districts the number of Counties in each District, the number of Towns reporting the wages of farm laborers and the number of Towns not reporting.\**

| Congressional Districts. | Number in each District. |                  |                      |
|--------------------------|--------------------------|------------------|----------------------|
|                          | Counties.                | Towns Reporting. | Towns Not Reporting. |
| First .....              | 1                        | 10               | 8                    |
| Second .....             | 4                        | 42               | 33                   |
| Third.....               | 5                        | 60               | 27                   |
| Fourth.....              | 5                        | 60               | 25                   |
| Fifth.....               | 4                        | 57               | 22                   |
| Sixth.....               | 5                        | 54               | 35                   |
| Seventh .....            | 5                        | 70               | 37                   |
| Eighth .....             | 6                        | 65               | 42                   |
| Ninth.....               | 13                       | 93               | 67                   |
| Tenth .....              | 17                       | 49               | 60                   |
| Eleventh .....           | 15                       | 53               | 47                   |
| Total .....              | 80                       | 613              | 403                  |

\* No blanks were sent to the Counties of Montmorency and Oscoda in the Tenth District, nor to Isle Royal, Manitou and Keweenaw in the Eleventh District.

By the foregoing it is seen that a trifle over 60 per cent of the towns addressed by circular made reports. The greatest per cent of towns reporting was in the Fifth District, while the lowest per cent was in the Tenth District.

Of the 75 counties to which circulars were sent, the Counties of Ogemaw, Ontonagon, Roscommon and Schoolcraft made no report whatever. The County of Baraga furnished reports from two towns, both as employing "no farm labor" This left 70 counties that did report farm labor.

The whole number of towns reporting is 613, of which 598 report wages for regular farm labor with board, and 15 report "no farm labor;" 585 towns report wages with board for harvest hands.

Table No. 16 shows the counties to which blanks were sent, the number of towns in each county from which reports were received, the average wages in each county for regular farm labor, with and without board; the highest and the lowest wages in each county, with and without board; the average wages for tenants, with house rent, use of garden and cow; the average wages with and without board paid for harvest hands, and the average number of months in which farm labor is employed in each county.

**TABLE No. 16.**—*Showing the average wages paid for farm labor, with and without board, the highest and the lowest wages, with and without board; the average wages of tenants; the average wages paid to harvest hands, with and without board; and the average number of months farm labor is employed, in seventy counties as reported from six hundred and ten towns in Michigan for 1885.*

| COUNTIES.           | Number of Towns Reporting. | Wages paid Regular Farm Labor per Month. |                |             |                 |             |                 | Average paid tenants, with use of house, ground and cow, per month. | Average paid Harvest Hands per day. |                | Average time employed. |       |
|---------------------|----------------------------|--|----------------|-------------|-----------------|-------------|-----------------|---|-------------------------------------|----------------|------------------------|-------|
|                     |                            | Average.                                 |                | Highest.    |                 | Lowest.     |                 |   | With board.                         | Without board. | Mo's.                  | Days. |
|                     |                            | With board.                              | Without board. | With board. | With-out board. | With board. | With-out board. |   |                                     |                |                        |       |
| Alcona.....         | 1                          | \$21 00                                  | \$35 00        | \$22 00     | \$36 00         | \$20 00     | \$34 00         | \$36 00   | \$1 50                              | \$2 00         | 4                      | ..... |
| Allegan.....        | 17                         | 15 73+                                   | 23 61          | 25 00       | 30 00           | 8 00        | 12 00           | 19 55+  | 1 72                                | 1 96+          | 7                      | 10    |
| Alpena.....         | 2                          | 18 87+                                   | 29 50          | 20 00       | 32 00           | 15 00       | 28 00           | .....   | 1 00                                | 1 50           | 6                      | ..... |
| Arenac.....         | 6                          | 19 04+                                   | 33 62+         | 25 00       | 35 50           | 15 00       | 30 00           | 29 00   | 1 55                                | 1 62+          | 7                      | 25    |
| Antrim.....         | 9                          | 16 29                                    | 28 33+         | 20 00       | 32 00           | 10 00       | 26 00           | 20 00   | 1 25                                | 1 02+          | 6                      | 23    |
| Baraga.....         | 2                          | .....                                    | .....          | .....       | .....           | .....       | .....           | .....   | .....                               | .....          | .....                  | ..... |
| Bay.....            | 9                          | 15 93                                    | 27 34          | 26 00       | 30 00           | 8 00        | 20 00           | 21 33   | 1 25                                | 1 66           | 6                      | 3     |
| Benzie.....         | 4                          | 16 75                                    | 26 87+         | 26 00       | 35 00           | 12 00       | 18 00           | 21 83+  | 1 37+                               | 1 62+          | 5                      | ..... |
| Barry.....          | 13                         | 16 40+                                   | 22 20          | 20 00       | 30 00           | 10 00       | 16 00           | 19 30   | 2 03+                               | 2 50           | 7                      | 15    |
| Berrien.....        | 13                         | 16 07+                                   | 24 00          | 20 00       | 32 50           | 8 00        | 14 00           | 22 45   | 1 79+                               | 2 16+          | 7                      | 23    |
| Branch.....         | 9                          | 15 98+                                   | 21 38+         | 20 00       | 30 00           | 10 00       | 18 00           | 22 17+  | 1 91+                               | 2 29+          | 8                      | ..... |
| Calhoun.....        | 13                         | 17 55+                                   | 23 15          | 22 00       | 26 00           | 8 00        | 18 00           | 20 55+  | 1 96+                               | 2 34+          | 8                      | ..... |
| Cass.....           | 7                          | 17 07+                                   | 23 95+         | 20 00       | 30 00           | 13 00       | 18 00           | 19 60   | 2 07+                               | 2 58+          | 8                      | 4     |
| Charlevoix.....     | 7                          | 17 92+                                   | 26 62+         | 20 00       | 32 00           | 10 00       | 25 00           | .....   | 1 37+                               | 1 94+          | 6                      | 24    |
| Cheboygan.....      | 3                          | 17 75                                    | 34 45          | 30 00       | 34 45           | 10 00       | 32 50           | .....   | 1 50                                | 2 00           | 4                      | ..... |
| Chippewa.....       | 7                          | 19 46+                                   | 33 41          | 26 00       | 50 00           | 14 00       | 24 00           | 22 50   | 1 33+                               | 1 75+          | 6                      | ..... |
| Crawford.....       | 2                          | 18 75                                    | 32 00          | 24 00       | 32 00           | 10 00       | 32 00           | .....   | 2 00                                | .....          | 5                      | 15    |
| Clare.....          | 3                          | 18 66+                                   | 31 62+         | 26 00       | 35 00           | 14 00       | 30 00           | .....   | 1 83+                               | 2 00           | 6                      | 20    |
| Clinton.....        | 5                          | 15 65                                    | 23 37+         | 19 00       | 28 00           | 11 00       | 17 00           | 17 00   | 1 65+                               | 2 00           | 7                      | ..... |
| Delta.....          | 6                          | 19 25                                    | 34 87+         | 28 00       | 42 00           | 10 00       | 25 00           | .....   | 1 25                                | 1 72+          | 6                      | 6     |
| Eaton.....          | 12                         | 17 16+                                   | 23 00          | 20 00       | 27 00           | 12 50       | 18 00           | 22 50   | 1 84+                               | 2 20           | 7                      | 10    |
| Emmet.....          | 2                          | 18 50                                    | .....          | 20 00       | .....           | 16 00       | .....           | .....   | 1 12+                               | 1 50           | 5                      | 15    |
| Gladwin.....        | 2                          | 18 00                                    | .....          | 20 00       | .....           | 16 00       | .....           | .....   | 1 25                                | .....          | 5                      | 15    |
| Grand Traverse..... | 8                          | 16 11+                                   | 24 44+         | 20 00       | 30 00           | 9 00        | 17 00           | 22 50   | 1 23+                               | 1 65+          | 6                      | 26    |
| Genesee.....        | 12                         | 16 17+                                   | 24 08+         | 20 00       | 27 00           | 14 00       | 20 00           | 18 60   | 1 68+                               | 2 26           | 7                      | 10    |
| Gratiot.....        | 13                         | 15 62+                                   | 22 31+         | 20 00       | 28 00           | 8 00        | 13 00           | 17 85+  | 1 52+                               | 1 94+          | 6                      | 18    |
| Hillsdale.....      | 12                         | 16 74+                                   | 23 66          | 20 00       | 26 00           | 10 00       | 18 00           | 21 04+  | 1 86+                               | 2 39+          | 7                      | 24    |
| Houghton.....       | 3                          | 19 58+                                   | 33 86          | 26 00       | 40 00           | 16 00       | 26 00           | .....   | 1 43+                               | 2 00           | 6                      | ..... |
| Huron.....          | 15                         | 15 91+                                   | 29 53          | 20 00       | 35 00           | 10 00       | 26 00           | 26 50   | 1 30+                               | 1 62+          | 7                      | 2     |
| Ingham.....         | 11                         | 16 74+                                   | 21 50          | 22 00       | 26 00           | 12 50       | 18 00           | 18 57+  | 1 86+                               | 2 31+          | 7                      | 8     |
| Ionia.....          | 11                         | 16 09+                                   | 23 75+         | 18 00       | 26 00           | 12 00       | 18 00           | 18 70+  | 1 63+                               | 2 06+          | 7                      | ..... |
| Iosco.....          | 3                          | 19 83                                    | 35 00          | 24 00       | 35 00           | 18 00       | 26 00           | 18 00   | 1 08+                               | 1 50           | 7                      | 20    |

TABLE No. 16.—Continued.

| COUNTIES.         | Number of Towns Reporting. | Wages paid Regular Farm Labor per Month. |                |             |                |             |                | Average paid tenants, with use of house, ground and cow, per month. | Average paid Harvest Hands per day. |                | Average time employed. |       |
|-------------------|----------------------------|--|----------------|-------------|----------------|-------------|----------------|---|-------------------------------------|----------------|------------------------|-------|
|                   |                            | Average.                                 |                | Highest.    |                | Lowest.     |                |   | With board.                         | Without board. | Mo's.                  | Days. |
|                   |                            | With board.                              | Without board. | With board. | Without board. | With board. | Without board. |   |                                     |                |                        |       |
|                   |                            |  |                |             |                |             |                |   |                                     |                |                        |       |
| Isabella.....     | 8                          | \$16 79+                                 | \$29 12+       | \$30 00     | \$34 00        | \$14 00     | \$24 00        | \$25 00   | \$1 53+                             | \$1 93+        | 6                      | 18    |
| Jackson.....      | 13                         | 17 20+                                   | 24 78          | 20 00       | 33 00          | 12 00       | 20 00          | 20 36+  | 1 98                                | 2 43+          | 7                      | 23    |
| Kalamazoo.....    | 12                         | 16 73+                                   | 22 57+         | 22 00       | 26 00          | 12 00       | 17 00          | 19 47+  | 1 98                                | 2 42+          | 7                      | 27    |
| Kalkaska.....     | 5                          | 17 85                                    | 31 50          | 26 00       | 35 00          | 15 00       | 28 00          | 15 00   | 1 25                                | 1 75           | 5                      | 18    |
| Kent.....         | 18                         | 16 33+                                   | 24 33+         | 20 00       | 33 50          | 12 00       | 16 00          | 19 83+  | 1 76+                               | 2 11+          | 7                      | 9     |
| Lake.....         | 6                          | 15 11                                    | -----          | 18 00       | -----          | 10 00       | -----          | -----   | 1 66+                               | 2 00           | 4                      | 20    |
| Leelanaw.....     | 8                          | 16 62                                    | 24 90+         | 26 00       | 39 00          | 10 00       | 20 00          | 25 00   | 1 15+                               | 1 58+          | 5                      | 22    |
| Lapeer.....       | 13                         | 15 67+                                   | 22 96+         | 25 00       | 30 00          | 8 00        | 15 00          | 18 15+  | 1 53+                               | 1 92+          | 7                      | 4     |
| Lenawee.....      | 13                         | 16 97                                    | 24 17          | 20 00       | 30 00          | 10 00       | 16 00          | 19 11+  | 1 75                                | 2 17+          | 7                      | 27    |
| Livingston.....   | 13                         | 17 45                                    | 24 50          | 22 00       | 26 00          | 13 00       | 20 00          | 20 37+  | 1 96+                               | 2 40           | 7                      | 7     |
| Mackinac.....     | 1                          | 20 00                                    | 32 50          | 20 00       | 32 50          | 20 00       | 32 50          | -----   | 1 50                                | 1 75           | 12                     | ----- |
| Macomb.....       | 10                         | 14 05                                    | 21 32+         | 18 00       | 25 00          | 8 00        | 18 00          | 19 42+  | 1 37+                               | 1 70+          | 7                      | 3     |
| Manistee.....     | 4                          | 17 83+                                   | 29 62+         | 22 00       | 32 00          | 14 00       | 27 00          | 16 00   | 1 50                                | 2 00           | 5                      | 10    |
| Marquette.....    | 10                         | 18 87+                                   | 35 83+         | 25 00       | 40 00          | 13 00       | 30 00          | 39 50   | 1 25                                | 1 81           | 6                      | 12    |
| Menominee.....    | 4                          | 18 48+                                   | 30 12+         | 22 00       | 31 00          | 16 00       | 28 50          | 26 00   | 1 33+                               | 1 83+          | 7                      | 8     |
| Mason.....        | 6                          | 16 50                                    | 25 81+         | 20 00       | 32 00          | 12 00       | 20 00          | 25 50   | 1 33+                               | 1 80+          | 6                      | 12    |
| Midland.....      | 8                          | 16 15+                                   | 25 00          | 20 00       | 30 50          | 10 00       | 15 00          | -----   | 1 32+                               | 1 56+          | 7                      | 18    |
| Mecosta.....      | 14                         | 16 25+                                   | 27 06+         | 26 00       | 45 00          | 12 00       | 20 00          | 22 71+  | 1 44+                               | 2 08+          | 6                      | 10    |
| Missaukee.....    | 7                          | 17 50                                    | 27 83          | 20 00       | 30 00          | 15 00       | 24 00          | -----   | 1 42+                               | 1 75           | 6                      | 25    |
| Monroe.....       | 6                          | 15 73                                    | 25 00          | 22 50       | 26 00          | 10 00       | 22 00          | 19 50   | 1 33+                               | 1 75           | 6                      | 15    |
| Muskegon.....     | 9                          | 15 64+                                   | -----          | 20 00       | -----          | 8 00        | -----          | -----   | 1 20+                               | 1 56+          | 6                      | 17    |
| Montcalm.....     | 14                         | 16 62+                                   | 24 82+         | 24 00       | 35 00          | 10 00       | 15 00          | 18 33+  | 1 59                                | 2 09+          | 6                      | 23    |
| Newaygo.....      | 11                         | 16 15+                                   | 27 37          | 20 00       | 32 50          | 10 00       | 20 00          | 25 00   | 1 46+                               | 1 95+          | 5                      | 24    |
| Oakland.....      | 13                         | 16 44                                    | 22 09          | 20 00       | 26 00          | 10 00       | 17 50          | 17 37+  | 1 77                                | 2 18           | 7                      | 23    |
| Oceana.....       | 11                         | 17 34+                                   | 26 55          | 24 00       | 32 00          | 10 00       | 16 00          | 22 00   | 1 47+                               | 1 87+          | 7                      | 2     |
| Ontonagon.....    | -----                      | -----                                    | -----          | -----       | -----          | -----       | -----          | -----   | -----                               | -----          | -----                  | ----- |
| Ogemaw.....       | -----                      | -----                                    | -----          | -----       | -----          | -----       | -----          | -----   | -----                               | -----          | -----                  | ----- |
| Osceola.....      | 1                          | 16 00                                    | -----          | 18 00       | -----          | 15 00       | -----          | -----   | 1 25                                | -----          | 7                      | ----- |
| Otsego.....       | 2                          | 18 12+                                   | 27 00          | 19 00       | 30 00          | 16 00       | 22 00          | 22 00   | 1 25                                | 1 62+          | 7                      | 15    |
| Ottawa.....       | 11                         | 15 61+                                   | 24 87          | 20 00       | 32 50          | 8 00        | 15 00          | 22 50   | 1 60                                | 2 00           | 7                      | ----- |
| Presque Isle..... | 2                          | 21 50                                    | 34 75          | 26 00       | 40 00          | 18 00       | 33 00          | -----   | 1 00                                | 1 50           | 2                      | ----- |
| Roscommon.....    | -----                      | -----                                    | -----          | -----       | -----          | -----       | -----          | -----   | -----                               | -----          | -----                  | ----- |
| Saginaw.....      | 12                         | 15 53+                                   | 24 74+         | 20 00       | 30 00          | 8 00        | 18 00          | 24 12+  | 1 33+                               | 1 73+          | 6                      | 17    |
| Shiawassee.....   | 10                         | 16 53+                                   | 22 80          | 20 00       | 26 00          | 11 00       | 18 00          | 20 33+  | 1 90                                | 2 22+          | 7                      | 3     |
| Sanilac.....      | 22                         | 15 64+                                   | 23 28+         | 26 00       | 30 00          | 8 00        | 16 00          | 21 43   | 1 19+                               | 1 51           | 5                      | 24    |

TABLE NO. 16.—*Continued.*

| COUNTIES.        | Number of Towns Reporting. | Wages paid Regular Farm Labor per Month. |                |             |                 |             |                 | Av. paid tenants, with use of house, ground and cow, per month. | Average paid Harvest Hands per day. |                | Average time employed. |       |
|------------------|----------------------------|--|----------------|-------------|-----------------|-------------|-----------------|---|-------------------------------------|----------------|------------------------|-------|
|                  |                            | Average.                                 |                | Highest.    |                 | Lowest.     |                 |   | With board.                         | Without board. | Mo's.                  | Days. |
|                  |                            | With board.                              | Without board. | With board. | With-out board. | With board. | With-out board. |   |                                     |                |                        |       |
| Schoolcraft..... |                            |  |                |             |                 |             |                 |   |                                     |                |                        |       |
| St. Clair.....   | 10                         | \$15 17+                                 | \$23 54        | \$20 00     | \$28 00         | \$10 00     | \$18 00         | \$18 12+  | \$1 16                              | \$1 60         | 6                      | 20    |
| St. Joseph.....  | 13                         | 17 34                                    | 23 28+         | 20 00       | 28 00           | 15 00       | 20 00           | 18 26   | 2 00                                | 2 37           | 7                      | 23    |
| Tuscola.....     | 12                         | 15 80+                                   | 23 82+         | 20 00       | 32 00           | 10 00       | 15 00           | 21 40   | 1 42                                | 1 81+          | 7                      | 10    |
| Van Buren.....   | 15                         | 15 97+                                   | 23 76+         | 20 00       | 30 00           | 10 00       | 16 00           | 20 13   | 1 70                                | 2 02+          | 7                      | 12    |
| Washtenaw.....   | 11                         | 17 39+                                   | 23 73          | 22 00       | 32 50           | 8 00        | 13 00           | 19 66+  | 1 82                                | 2 07+          | 7                      | 23    |
| Wayne.....       | 10                         | 15 82+                                   | 23 10          | 20 00       | 30 00           | 8 00        | 13 00           | 19 98+  | 1 32+                               | 1 65+          | 8                      | ----  |
| Wexford.....     | 3                          | 17 77+                                   | 31 33+         | 20 00       | 33 00           | 15 00       | 30 00           | -----   | 1 33+                               | 1 75+          | 7                      | ----  |

Table Number 17, arranged by Congressional Districts, shows the number of counties in each district; the number of towns in each county that reported; the average wages, and highest and lowest wages paid regular farm labor and harvest hands both with and without board; average wages paid to tenants, and average length of time in year that farm labor is employed, by counties, with totals for each district.

**TABLE NO. 17.—Showing the average wages paid for farm labor, with and without board; the highest and the lowest wages, with and without board; the average wages of tenants; the average wages paid to Harvest hands, with and without board; the average number of months farm labor is employed in Eleven Congressional Districts in Michigan for the year 1885.**

| Congressional Districts<br>and Counties<br>Comprising same. | Number of Towns<br>Reporting. | Wages paid Regular Farm Labor<br>per Month. |                   |                |                        |                |                        | Average paid tenants<br>with use of house,<br>ground and cow, per<br>month. | Average<br>paid Harvest<br>Hands per day. |                   | Average time reg-<br>ular farm<br>hands are<br>employ'd. |       |
|---|-------------------------------|---|-------------------|----------------|------------------------|----------------|------------------------|---|---|-------------------|--|-------|
|   |                               | Average.                                    |                   | Highest.       |                        | Lowest.        |                        |   | With<br>board.                            | Without<br>board. | Mo's.  | Days. |
|   |                               | With<br>board.                              | Without<br>board. | With<br>board. | With-<br>out<br>board. | With<br>board. | With-<br>out<br>board. |   |   |                   |  |       |
| <i>First :</i>  |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Wayne .....   | 10                            | \$15 82+                                    | \$23 10           | \$20 00        | \$30 00                | \$8 00         | \$13 00                | \$19 98+  | \$1 32+                                   | \$1 65+           | 8  | ----  |
| <i>Second :</i>   |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Hillsdale.....  | 12                            | \$16 74+                                    | \$23 66           | \$20 00        | \$26 00                | \$10 00        | \$18 00                | \$21 04   | \$1 86+                                   | \$2 39+           | 7  | 24    |
| Lenawee.....  | 13                            | 16 97                                       | 24 17             | 20 00          | 30 00                  | 10 00          | 16 00                  | 19 11+  | 1 75                                      | 2 17+             | 7  | 27    |
| Monroe.....   | 6                             | 15 73                                       | 25 00             | 22 50          | 26 00                  | 10 00          | 22 00                  | 19 50   | 1 33+                                     | 1 75              | 6  | 15    |
| Washtenaw .....   | 11                            | 17 29+                                      | 23 73             | 22 00          | 32 50                  | 8 00           | 13 00                  | 19 66+  | 1 82                                      | 2 07+             | 7  | 23    |
| District.....   | 42                            | \$16 68+                                    | \$24 14           | \$22 50        | \$32 50                | \$8 00         | \$13 00                | \$19 82+  | \$1 60+                                   | \$2 09+           | 7  | 15    |
| <i>Third :</i>  |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Branch.....   | 9                             | \$15 98+                                    | \$21 38+          | \$20 00        | \$30 00                | \$10 00        | \$18 00                | \$22 17+  | \$1 91+                                   | \$2 29+           | 8  | ----  |
| Barry .....   | 13                            | 16 40+                                      | 22 20             | 20 00          | 30 00                  | 10 00          | 16 00                  | 19 30   | 2 03+                                     | 2 50              | 7  | 15    |
| Calhoun.....  | 13                            | 17 55+                                      | 23 15             | 22 00          | 26 00                  | 8 00           | 18 00                  | 20 55+  | 1 96+                                     | 2 34+             | 8  | ----  |
| Eaton .....   | 12                            | 17 16+                                      | 23 00             | 20 00          | 27 00                  | 12 50          | 18 00                  | 22 50   | 1 84+                                     | 2 20              | 7  | 10    |
| Jackson .....   | 13                            | 17 20+                                      | 24 78             | 20 00          | 33 00                  | 12 00          | 20 00                  | 20 36+  | 1 98                                      | 2 43+             | 7  | 23    |
| District.....   | 60                            | \$16 85+                                    | \$22 90+          | \$22 00        | \$33 00                | \$8 00         | \$16 00                | \$20 97+  | \$1 94+                                   | \$2 35+           | 7  | 22    |
| <i>Fourth :</i>   |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Berrien.....  | 13                            | \$16 07+                                    | \$24 00           | \$20 00        | \$32 50                | \$8 00         | \$14 00                | \$22 45   | \$1 79+                                   | \$2 16+           | 7  | 23    |
| Cass.....   | 7                             | 17 07+                                      | 23 95+            | 20 00          | 30 00                  | 13 00          | 18 00                  | 19 60   | 2 07+                                     | 2 58+             | 8  | 4     |
| Kalamazoo.....  | 12                            | 16 73+                                      | 22 57+            | 22 00          | 26 00                  | 12 00          | 17 00                  | 19 47+  | 1 98                                      | 2 42+             | 7  | 27    |
| St. Joseph.....   | 13                            | 17 34                                       | 23 28+            | 20 00          | 28 00                  | 15 00          | 20 00                  | 18 26   | 2 00                                      | 2 37              | 7  | 23    |
| Van Buren.....  | 15                            | 15 97+                                      | 23 76+            | 20 00          | 30 00                  | 10 00          | 16 00                  | 20 13   | 1 70                                      | 2 02              | 7  | 12    |
| District.....   | 60                            | \$16 63+                                    | \$23 51+          | \$22 00        | \$32 50                | \$8 00         | \$14 00                | \$19 98+  | \$1 90+                                   | \$2 31+           | 7  | 24    |
| <i>Fifth :</i>  |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Allegan .....   | 17                            | \$15 73+                                    | \$23 61           | \$25 00        | \$30 00                | \$8 00         | \$12 00                | \$19 55+  | \$1 72                                    | \$1 96+           | 7  | 10    |
| Ionia .....   | 11                            | 16 09+                                      | 23 75+            | 18 00          | 26 00                  | 12 00          | 18 00                  | 18 70+  | 1 63+                                     | 2 06+             | 7  | ----  |
| Kent.....   | 18                            | 16 33+                                      | 24 33+            | 20 00          | 33 50                  | 12 00          | 16 00                  | 19 83+  | 1 76+                                     | 2 11+             | 7  | 9     |
| Ottawa.....   | 11                            | 15 61+                                      | 24 87             | 20 00          | 32 50                  | 8 00           | 15 00                  | 22 50   | 1 60                                      | 2 00              | 7  | ----  |
| District.....   | 57                            | \$15 94+                                    | \$24 14+          | \$25 00        | \$33 50                | \$8 00         | \$12 00                | \$20 14+  | \$1 68+                                   | \$2 03+           | 7  | 5     |
| <i>Sixth :</i>  |                               |   |                   |                |                        |                |                        |   |   |                   |  |       |
| Clinton.....  | 5                             | \$15 65                                     | \$23 37+          | \$19 00        | \$28 00                | \$11 00        | \$17 00                | \$17 00   | \$1 65                                    | \$2 00            | 7  | ----  |
| Genesee .....   | 12                            | 16 17+                                      | 24 08+            | 20 00          | 27 00                  | 14 00          | 20 00                  | 18 60   | 1 68+                                     | 2 26              | 7  | 10    |
| Ingham .....  | 11                            | 16 74+                                      | 21 50             | 22 00          | 26 00                  | 12 50          | 18 00                  | 18 57+  | 1 86+                                     | 2 31+             | 7  | 8     |

TABLE NO. 17.—Continued.

| Congressional Districts<br>and Counties<br>Comprising same. | Number of Towns<br>Reporting. | Wages paid Regular Farm Labor<br>per Month. |                   |                |                        |                |                        | Average paid tenants,<br>with use of house,<br>ground and cow, per<br>month. | Average<br>paid Harvest<br>Hands per day. |                   | Average<br>time reg-<br>ular farm<br>hands are<br>employ'd. |       |  |
|---|-------------------------------|---|-------------------|----------------|------------------------|----------------|------------------------|--|---|-------------------|---|-------|--|
|   |                               | Average.                                    |                   | Highest.       |                        | Lowest.        |                        |  | With<br>board.                            | Without<br>board. | Mo's.   | Days. |  |
|   |                               | With<br>board.                              | Without<br>board. | With<br>board. | With-<br>out<br>board. | With<br>board. | With-<br>out<br>board. |  |   |                   |   |       |  |
| <i>Sixth—Continued.</i>                                     |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |  |
| Livingston .....  | 13                            | \$17 45                                     | \$24 50           | \$22 00        | \$26 00                | \$13 00        | \$20 00                | \$20 37+   | \$1 96+                                   | \$2 40            | 7   | 7     |  |
| Oakland .....   | 13                            | 16 44                                       | 22 09             | 20 00          | 26 00                  | 10 00          | 17 50                  | 17 37+   | 1 77                                      | 2 18              | 7   | 23    |  |
| District .....  | 54                            | \$16 49+                                    | \$23 10+          | \$22 00        | \$28 00                | \$10 00        | \$17 00                | \$18 38+   | \$1 78+                                   | \$2 23+           | 7   | 9     |  |
| <i>Seventh :</i>  |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |  |
| Huron .....   | 15                            | \$15 91+                                    | \$29 53+          | \$20 00        | \$35 00                | \$10 00        | \$26 00                | \$26 50+   | \$1 30+                                   | \$1 62+           | 7   | 2     |  |
| Lapeer .....  | 13                            | 15 67+                                      | 22 93+            | 25 00          | 30 00                  | 8 00           | 15 00                  | 18 15+   | 1 53+                                     | 1 92+             | 7   | 4     |  |
| Macomb .....  | 10                            | 14 05                                       | 21 32+            | 18 00          | 25 00                  | 8 00           | 18 00                  | 19 42+   | 1 37+                                     | 1 70+             | 7   | 3     |  |
| Sanilac .....   | 22                            | 15 64+                                      | 23 28+            | 26 00          | 30 00                  | 8 00           | 16 00                  | 21 43  | 1 19+                                     | 1 51              | 5   | 24    |  |
| St. Clair .....   | 10                            | 15 17+                                      | 23 54+            | 20 00          | 28 00                  | 10 00          | 18 00                  | 18 12+   | 1 16                                      | 1 60              | 6   | 20    |  |
| District .....  | 70                            | \$15 28+                                    | \$24 12+          | \$26 00        | \$35 00                | \$8 00         | \$15 00                | \$20 72+   | \$1 31+                                   | \$1 67+           | 6   | 22    |  |
| <i>Eighth :</i>   |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |  |
| Gratiot .....   | 13                            | \$15 62+                                    | \$22 31+          | \$20 00        | \$28 00                | \$8 00         | \$13 00                | \$17 85+   | \$1 52+                                   | \$1 94+           | 6   | 18    |  |
| Isabella .....  | 8                             | 16 79+                                      | 29 12+            | 20 00          | 34 00                  | 14 00          | 24 00                  | 25 00  | 1 53+                                     | 1 93+             | 6   | 18    |  |
| Montcalm .....  | 14                            | 16 62+                                      | 24 82+            | 24 00          | 35 00                  | 10 00          | 15 00                  | 18 33+   | 1 59                                      | 2 09+             | 6   | 23    |  |
| Midland .....   | 8                             | 16 15+                                      | 25 00             | 20 00          | 30 50                  | 10 00          | 15 00                  | .....  | 1 32+                                     | 1 56+             | 7   | 18    |  |
| Saginaw .....   | 12                            | 15 53+                                      | 24 74+            | 20 00          | 30 00                  | 8 00           | 18 00                  | 24 12+   | 1 33+                                     | 1 73+             | 6   | 17    |  |
| Shiawassee .....  | 10                            | 16 53+                                      | 22 80             | 20 00          | 26 00                  | 11 00          | 18 00                  | 20 33+   | 1 90                                      | 2 22+             | 7   | 8     |  |
| District .....  | 65                            | \$16 20+                                    | \$24 79+          | \$24 00        | \$35 00                | \$8 00         | \$13 00                | \$21 12+   | \$1 53+                                   | \$1 91+           | 6   | 27    |  |
| <i>Ninth :</i>  |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |  |
| Antrim .....  | 9                             | \$16 29                                     | \$28 33+          | \$20 00        | \$32 00                | \$10 00        | \$26 00                | \$20 00+   | \$1 25                                    | \$1 62+           | 6   | 23    |  |
| Charlevoix .....  | 7                             | 17 92+                                      | 26 62+            | 20 00          | 32 00                  | 10 00          | 25 00                  | .....  | 1 37+                                     | 1 94+             | 6   | 24    |  |
| Kalkaska .....  | 5                             | 17 85                                       | 31 50+            | 26 00          | 35 00                  | 15 00          | 28 00                  | 15 00  | 1 25                                      | 1 75              | 5   | 18    |  |
| Lake .....  | 6                             | 15 11                                       | .....             | 18 00          | .....                  | 10 00          | .....                  | .....  | 1 66+                                     | 2 00              | 4   | 20    |  |
| Mason .....   | 6                             | 16 50                                       | 25 81+            | 20 00          | 32 00                  | 12 00          | 20 00                  | 25 50  | 1 33+                                     | 1 80+             | 6   | 12    |  |
| Manistee .....  | 4                             | 17 83+                                      | 29 62+            | 22 00          | 32 00                  | 14 00          | 27 00                  | 16 00  | 1 50                                      | 2 00              | 5   | 10    |  |
| Mecosta .....   | 14                            | 16 25+                                      | 27 06+            | 26 00          | 45 00                  | 12 00          | 20 00                  | 22 71+   | 1 44+                                     | 2 08+             | 6   | 10    |  |
| Missaukee .....   | 7                             | 17 50                                       | 27 83             | 20 00          | 30 00                  | 15 00          | 24 00                  | .....  | 1 42+                                     | 1 75              | 6   | 25    |  |
| Muskegon .....  | 9                             | 15 64+                                      | .....             | 20 00          | .....                  | 8 00           | .....                  | .....  | 1 29+                                     | 1 56+             | 6   | 17    |  |
| Newaygo .....   | 11                            | 16 15+                                      | 27 37             | 20 00          | 32 50                  | 10 00          | 20 00                  | 25 00  | 1 46+                                     | 1 95+             | 5   | 24    |  |
| Oceana .....  | 11                            | 17 34+                                      | 26 55             | 24 00          | 32 00                  | 10 00          | 16 00                  | 22 00  | 1 47+                                     | 1 87+             | 7   | 2     |  |
| Osceola .....   | 1                             | 16 00                                       | .....             | 18 00          | .....                  | 15 00          | .....                  | .....  | 1 25                                      | .....             | 7   | ..... |  |
| Wexford .....   | 3                             | 17 77+                                      | 31 33+            | 20 00          | 33 00                  | 15 00          | 30 00                  | .....  | 1 33+                                     | 1 75              | 7   | ..... |  |
| District .....  | 93                            | \$16 78+                                    | \$28 20+          | \$26 00        | \$45 00                | \$8 00         | \$16 00                | \$20 88+   | \$1 38+                                   | \$1 84+           | 6   | 9     |  |

TABLE No. 17.—Continued.

| Congressional Districts<br>and Counties<br>Comprising same. | Number of Towns<br>Reporting. | Wages paid Regular Farm Labor<br>per Month. |                   |                |                        |                |                        | Average paid tenants,<br>with use of house,<br>ground and cow, per<br>month. | Average<br>paid Harvest<br>Hands per day. |                   | Average<br>time reg-<br>ular farm<br>hands are<br>employ'd. |       |
|---|-------------------------------|---|-------------------|----------------|------------------------|----------------|------------------------|--|---|-------------------|---|-------|
|   |                               | Average.                                    |                   | Highest.       |                        | Lowest.        |                        |  | With<br>board.                            | Without<br>board. | Mo's.   | Days. |
|   |                               | With<br>board.                              | Without<br>board. | With<br>board. | With-<br>out<br>board. | With<br>board. | With-<br>out<br>board. |  |   |                   |   |       |
| <i>Tenth:</i>   |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |
| Alcona .....  | 1                             | \$21 00                                     | \$35 00           | \$22 00        | \$36 00                | \$20 00        | \$34 00                | \$36 00  | \$1 50                                    | \$2 00            | 4   | ----  |
| Alpena .....  | 2                             | 18 87+                                      | 29 50             | 20 00          | 32 00                  | 15 00          | 28 00                  | -----  | 1 00                                      | 1 50              | 6   | ----  |
| Arenac .....  | 6                             | 19 04+                                      | 33 62+            | 25 00          | 35 50                  | 15 00          | 30 00                  | 29 00  | 1 55                                      | 1 62+             | 7   | 25    |
| Bay .....   | 9                             | 15 93                                       | 27 34             | 26 00          | 30 00                  | 8 00           | 20 00                  | 21 33  | 1 25                                      | 1 66              | 6   | 3     |
| Cheboygan .....   | 3                             | 17 75                                       | 34 45             | 30 00          | 34 45                  | 10 00          | 32 50                  | -----  | 1 50                                      | 2 00              | 4   | ----  |
| Clare .....   | 3                             | 18 66+                                      | 31 62+            | 26 00          | 35 00                  | 14 00          | 30 00                  | -----  | 1 83+                                     | 2 00              | 6   | 20    |
| Crawford .....  | 2                             | 18 75                                       | 32 00             | 24 00          | 32 00                  | 10 00          | 32 00                  | -----  | 2 00                                      | -----             | 5   | 15    |
| Emmet .....   | 2                             | 18 50                                       | -----             | 20 00          | -----                  | 16 00          | -----                  | -----  | 1 12+                                     | 1 50              | 5   | 15    |
| Gladwin .....   | 2                             | 18 00                                       | -----             | 20 00          | -----                  | 16 00          | -----                  | -----  | 1 25                                      | -----             | 5   | 15    |
| Iosco .....   | 3                             | 19 83                                       | 35 00             | 24 00          | 35 00                  | 18 00          | 35 00                  | 18 00  | 1 08+                                     | 1 50              | 7   | 20    |
| Montmorency*  | -----                         | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Ogemaw .....  | 0                             | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Oscoda*   | -----                         | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Otsego .....  | 2                             | 18 12+                                      | 27 00             | 19 00          | 30 00                  | 16 00          | 22 00                  | 22 00  | 1 25+                                     | 1 62+             | 7   | 15    |
| Presque Isle .....  | 2                             | 21 50                                       | 34 75             | 26 00          | 40 00                  | 18 00          | 33 00                  | -----  | 1 00                                      | 1 50              | 2   | ----  |
| Roscommon .....   | 0                             | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Tuscola .....   | 12                            | 15 80+                                      | 23 82+            | 20 00          | 32 00                  | 10 00          | 15 00                  | 21 40  | 1 42                                      | 1 81+             | 7   | 10    |
| District .....  | 49                            | \$18 59+                                    | \$31 28+          | \$30 00        | \$40 00                | \$8 00         | \$15 00                | \$24 62+   | \$1 36+                                   | \$1 70+           | 5   | 24    |
| <i>Eleventh:</i>  |                               |   |                   |                |                        |                |                        |  |   |                   |   |       |
| Baraga† .....   | 2                             | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Benzie .....  | 4                             | \$16 75                                     | \$26 87+          | \$26 00        | \$35 00                | \$12 00        | \$18 00                | \$21 83+   | \$1 37+                                   | \$1 62+           | 5   | ----  |
| Chippewa .....  | 7                             | 19 46+                                      | 33 41+            | 26 00          | 50 00                  | 14 00          | 24 00                  | 22 50  | 1 33+                                     | 1 75+             | 6   | ----  |
| Delta .....   | 6                             | 19 25                                       | 34 87+            | 28 00          | 42 00                  | 10 00          | 25 00                  | -----  | 1 25                                      | 1 72+             | 6   | 6     |
| Grand Traverse .....  | 8                             | 16 11+                                      | 24 44+            | 20 00          | 30 00                  | 9 00           | 17 00                  | 22 50  | 1 28+                                     | 1 65+             | 6   | 26    |
| Houghton .....  | 3                             | 19 58+                                      | 33 86             | 26 00          | 40 00                  | 16 00          | 26 00                  | -----  | 1 43+                                     | 2 00              | 6   | ----  |
| Isle Royal*   | -----                         | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Keweenaw*   | -----                         | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Leelanaw .....  | 8                             | 16 62                                       | 24 90+            | 26 00          | 39 00                  | 10 00          | 20 00                  | 25 00  | 1 15+                                     | 1 58+             | 5   | 22    |
| Mackinac .....  | 1                             | 20 00                                       | 32 50             | 20 00          | 32 50                  | 20 00          | 32 50                  | -----  | 1 50                                      | 1 75              | 12  | ----  |
| Manitou*  | -----                         | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Marquette .....   | 10                            | 18 87+                                      | 35 83+            | 25 00          | 40 00                  | 13 00          | 30 00                  | 39 50  | 1 25                                      | 1 81              | 6   | 12    |
| Menominee .....   | 4                             | 18 48+                                      | 30 12+            | 22 00          | 31 00                  | 16 00          | 28 50                  | 26 00  | 1 33+                                     | 1 83+             | 7   | 8     |
| Ontonagon .....   | 0                             | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| Schoolcraft .....   | 0                             | -----                                       | -----             | -----          | -----                  | -----          | -----                  | -----  | -----                                     | -----             | -----   | ----- |
| District .....  | 53                            | \$18 34+                                    | \$30 75+          | \$28 00        | \$50 00                | \$9 00         | \$17 00                | \$26 22+   | \$1 32+                                   | \$1 74+           | 6   | 25    |

\* No blanks sent. † No farm labor.

To show how the reported averages of wages for regular farm labor, tenants, and harvest hands were distributed among the towns reporting, and to show how many towns reported each lowest and highest wage, as well as to show how the number of months given as average time of employment of regular farm labor were distributed among the towns, the following statements have been prepared:

Statement showing the average wages paid, with board, for farm labor in the towns reporting. Paying:

|                            |     |                          |     |
|----------------------------|-----|--------------------------|-----|
| \$11 and under \$12.....   | 5   | \$19 and under \$20..... | 23  |
| 12 and under 13.....       | 10  | 20 and under 21.....     | 17  |
| 13 and under 14.....       | 21  | 21 and under 22.....     | 6   |
| 14 and under 15.....       | 55  | 22 and under 23.....     | 8   |
| 15 and under 16.....       | 102 | 23 and under 24.....     | 1   |
| 16 and under 17.....       | 153 | 24 and under 25.....     | 1   |
| 17 and under 18.....       | 114 | 26 and under 27.....     | 3   |
| 18 and under 19.....       | 79  |                          |     |
| Total towns reporting..... |     |                          | 598 |

Statement showing the average prices paid for farm labor, without board. Number paying:

|                            |    |                          |     |
|----------------------------|----|--------------------------|-----|
| \$15 and under \$16.....   | 2  | \$28 and under \$29..... | 11  |
| 17 and under 18.....       | 2  | 29 and under 30.....     | 12  |
| 18 and under 19.....       | 4  | 30 and under 31.....     | 15  |
| 19 and under 20.....       | 16 | 31 and under 32.....     | 7   |
| 20 and under 21.....       | 22 | 32 and under 33.....     | 8   |
| 21 and under 22.....       | 21 | 33 and under 34.....     | 4   |
| 22 and under 23.....       | 34 | 34 and under 35.....     | 5   |
| 23 and under 24.....       | 19 | 35 and under 36.....     | 6   |
| 24 and under 25.....       | 33 | 38 and under 39.....     | 1   |
| 25 and under 26.....       | 36 | 39 and under 40.....     | 2   |
| 26 and under 27.....       | 45 | 42 and under 43.....     | 1   |
| 27 and under 28.....       | 14 | 45 and under 46.....     | 2   |
| Total towns reporting..... |    |                          | 322 |

Statement showing the highest wages paid, with board, and the number of towns paying each given rate of wage. Paying:

|                            |     |                     |     |                     |     |
|----------------------------|-----|---------------------|-----|---------------------|-----|
| \$12 per month.....        | 1   | \$19 per month..... | 25  | \$24 per month..... | 7   |
| 14 per month.....          | 5   | 20 per month.....   | 168 | 25 per month.....   | 5   |
| 15 per month.....          | 32  | 21 per month.....   | 1   | 26 per month.....   | 12  |
| 16 per month.....          | 65  | 22 per month.....   | 14  | 28 per month.....   | 1   |
| 17 per month.....          | 50  | 23 per month.....   | 1   | 30 per month.....   | 1   |
| 18 per month.....          | 210 |                     |     |                     |     |
| Total towns reporting..... |     |                     |     |                     | 598 |



Statement showing the highest wages paid, without board, and the number of towns paying each given rate of wage. Paying:

|                            |    |                     |    |                     |     |
|----------------------------|----|---------------------|----|---------------------|-----|
| \$20 per month.....        | 17 | \$28 per month..... | 14 | \$35 per month..... | 11  |
| 21 per month.....          | 3  | 29 per month.....   | 4  | 36 per month.....   | 3   |
| 22 per month.....          | 20 | 30 per month.....   | 48 | 39 per month.....   | 4   |
| 23 per month.....          | 8  | 31 per month.....   | 1  | 40 per month.....   | 2   |
| 24 per month.....          | 23 | 32 per month.....   | 19 | 42 per month.....   | 1   |
| 25 per month.....          | 49 | 33 per month.....   | 5  | 45 per month.....   | 2   |
| 26 per month.....          | 77 | 34 per month.....   | 3  | 50 per month.....   | 1   |
| 27 per month.....          | 7  |                     |    |                     |     |
| Total towns reporting..... |    |                     |    |                     | 322 |

Statement showing the lowest wages paid, with board, and the number of towns paying each given rate of wage. Number paying:

|                            |    |                     |     |                     |     |
|----------------------------|----|---------------------|-----|---------------------|-----|
| \$8 per month.....         | 14 | \$13 per month..... | 33  | \$18 per month..... | 41  |
| 9 per month.....           | 1  | 14 per month.....   | 74  | 19 per month.....   | 6   |
| 10 per month.....          | 39 | 15 per month.....   | 145 | 20 per month.....   | 11  |
| 11 per month.....          | 5  | 16 per month.....   | 136 | 26 per month.....   | 3   |
| 12 per month.....          | 54 | 17 per month.....   | 36  |                     |     |
| Total towns reporting..... |    |                     |     |                     | 598 |

Statement showing the lowest wages paid, without board, and the number of towns paying each given rate of wage. Number paying:

|                            |    |                     |    |                     |     |
|----------------------------|----|---------------------|----|---------------------|-----|
| \$13 per month.....        | 3  | \$29 per month..... | 35 | \$30 per month..... | 17  |
| 14 per month.....          | 2  | 23 per month.....   | 13 | 31 per month.....   | 3   |
| 15 per month.....          | 6  | 24 per month.....   | 29 | 32 per month.....   | 7   |
| 16 per month.....          | 7  | 25 per month.....   | 23 | 33 per month.....   | 3   |
| 17 per month.....          | 7  | 26 per month.....   | 52 | 34 per month.....   | 2   |
| 18 per month.....          | 25 | 27 per month.....   | 4  | 35 per month.....   | 7   |
| 19 per month.....          | 4  | 28 per month.....   | 11 | 39 per month.....   | 1   |
| 20 per month.....          | 51 | 29 per month.....   | 3  | 45 per month.....   | 2   |
| 21 per month.....          | 5  |                     |    |                     |     |
| Total towns reporting..... |    |                     |    |                     | 323 |

Statement showing the average wages paid to tenants and the number of towns paying each given rate of wage. Number paying:

|                            |    |                          |     |
|----------------------------|----|--------------------------|-----|
| \$10 and under \$11.....   | 2  | \$23 and under \$24..... | 7   |
| 12 and under 13.....       | 6  | 24 and under 25.....     | 10  |
| 13 and under 14.....       | 7  | 25 and under 26.....     | 31  |
| 14 and under 15.....       | 8  | 26 and under 27.....     | 19  |
| 15 and under 16.....       | 12 | 27 and under 28.....     | 1   |
| 16 and under 17.....       | 36 | 30 and under 31.....     | 5   |
| 17 and under 18.....       | 9  | 32 and under 33.....     | 3   |
| 18 and under 19.....       | 34 | 35 and under 36.....     | 1   |
| 19 and under 20.....       | 4  | 36 and under 37.....     | 1   |
| 20 and under 21.....       | 81 | 39 and under 40.....     | 1   |
| 21 and under 22.....       | 7  | 40 and under 41.....     | 1   |
| 22 and under 23.....       | 25 |                          |     |
| Total towns reporting..... |    |                          | 311 |

The following statement shows the average number of months farm labor is reported as employed, and the number of towns reporting each given number of months :

|                             |    |               |     |                |     |
|-----------------------------|----|---------------|-----|----------------|-----|
| 1 month.....                | 1  | 5 months..... | 28  | 9 months.....  | 26  |
| 2 months.....               | 5  | 6 months..... | 121 | 10 months..... | 9   |
| 3 months.....               | 8  | 7 months..... | 160 | 11 months..... | 1   |
| 4 months.....               | 19 | 8 months..... | 188 | 12 months..... | 11  |
| Total towns reporting ..... |    |               |     |                | 577 |

A few towns report fractions of months, making the average for the State 7 months and 2 days.

The following statement shows the average wages, with board, paid harvest hands, and the number of towns paying each given rate of wage :

|                                      |     |                                   |     |
|--------------------------------------|-----|-----------------------------------|-----|
| Number paying \$1.00 per day.....    | 66  | Number paying \$1.75 per day..... | 53  |
| Number paying 1.25 per day.....      | 84  | Number paying 2.00 per day.....   | 185 |
| Number paying 1.50 per day.....      | 194 | Number paying 2.50 per day.....   | 3   |
| Total number of towns reporting..... |     | 588                               |     |

The following statement shows the average wages, without board, paid harvest hands, and the number of towns paying each given rate of wage :

|                                       |     |                                    |    |
|---------------------------------------|-----|------------------------------------|----|
| Number paying \$1.25 per day .....    | 9   | Number paying \$2.25 per day ..... | 27 |
| Number paying 1.50 per day .....      | 52  | Number paying 2.50 per day .....   | 63 |
| Number paying 1.75 per day .....      | 50  | Number paying 2.75 per day .....   | 1  |
| Number paying 2.00 per day .....      | 110 | Number paying 3.00 per day .....   | 3  |
| Total number of towns reporting ..... |     | 315                                |    |

Table No. 18 is a summary of the reports of supervisors on the question of wages paid farm laborers.

TABLE NO. 18.—*Showing Grand Totals for entire State as made up from Supervisors Reports. Wages and Time.*

|   |                   |
|---|-------------------|
| Average wages paid regular farm labor, with board, per month.....     | \$17 07 +         |
| Average wages paid regular farm labor, without board, per month.....  | 28 24 +           |
| Highest wages paid regular farm labor, with board, per month.....     | 30 00             |
| Lowest wages paid regular farm labor, with board, per month.....      | 8 00              |
| Highest wages paid regular farm labor, without board, per month.....  | 50 00             |
| Lowest wages paid regular farm labor, without board, per month.....   | 17 00             |
| Average wages paid tenants, with rent, cow and garden, per month..... | 21 45 +           |
| Highest wages paid tenants, with rent, cow and garden, per month..... | 40 00             |
| Lowest wages paid tenants, with rent, cow and garden, per month.....  | 10 00             |
| Average wages paid harvest hands, with board, per day.....            | 1 50 +            |
| Average wages paid harvest hands, without board, per day.....         | 1 92 +            |
| Highest wages paid harvest hands, with board, per day.....            | 2 50              |
| Lowest wages paid harvest hands, with board, per day.....             | 1 00              |
| Highest wages paid harvest hands, without board, per day.....         | 3 00              |
| Lowest wages paid harvest hands, without board, per day.....          | 1 25              |
| Average time regular labor is employed.....                           | 7 months, 2 days. |

In studying the tables of this chapter there will undoubtedly arise the question as to the extent to which each Congressional District is devoted to agriculture. To meet this question a few farm statistics are herewith given.

TABLE NO. 19.—*Showing the Number of Farms, with the Number of Acres Improved and Unimproved in Michigan, as reported for the Years 1882, 1883 and 1884.*

|                                 | 1882.      | 1883.      | 1884.      |
|---------------------------------|------------|------------|------------|
| Number of farms.....            | 124,884    | 128,840    | 131,170    |
| Number of acres improved.....   | 6,094,659  | 6,917,656  | 7,179,808  |
| Number of acres unimproved..... | 4,837,545  | 4,839,452  | 5,011,853  |
| Total number of acres.....      | 11,531,604 | 11,757,108 | 12,191,655 |

The number of acres sown to wheat, the number of bushels of wheat raised and the number of sheep owned in the several counties of the State, as now arranged in Congressional Districts, is given in detail in Table No. 20. The figures are for the year 1880 as given by Supervisors to the Secretary of State. By the side of these figures are placed for convenience of the reader the average wages paid in 1885 for farm labor and harvest work, both with board.

TABLE NO. 20.—*Showing the number of acres sown to wheat, number of bushels of wheat raised, and number of sheep owned in Michigan in 1880, arranged by Congressional Districts, together with wages with board in 1885 for farm labor and harvest hands.*

| Congressional Districts. | Acres Sown to Wheat in 1880. | Bushels Wheat Raised in 1880. | Sheep Owned in 1880. | Average Monthly Farm Wage, 1885, with Board. | Average Daily Harvest Wage, 1885, with Board. | Counties in District, 1885. |
|--------------------------|------------------------------|-------------------------------|----------------------|--|---|-----------------------------|
| First.....               | 20,596                       | 399,717                       | 23,752               | \$15 82+                                     | \$1 32+                                       | 1                           |
| Second.....              | 223,188                      | 4,098,238                     | 387,130              | 16 68+                                       | 1 09+   | 4                           |
| Third.....               | 312,562                      | 5,570,356                     | 379,070              | 16 85+                                       | 1 94+   | 5                           |
| Fourth.....              | 282,226                      | 5,352,921                     | 222,849              | 16 63+                                       | 1 90+   | 5                           |
| Fifth.....               | 216,893                      | 3,006,476                     | 179,791              | 15 94+                                       | 1 68+   | 4                           |
| Sixth.....               | 287,427                      | 4,906,382                     | 443,399              | 16 49+                                       | 1 73+   | 5                           |
| Seventh.....             | 160,183                      | 2,234,639                     | 177,473              | 15 28+                                       | 1 31+   | 5                           |
| Eighth.....              | 144,038                      | 2,085,446                     | 108,785              | 16 20+                                       | 1 53+   | 6                           |
| Ninth.....               | 59,460                       | 847,716                       | 17,337               | 16 78+                                       | 1 38+   | 13                          |
| Tenth.....               | 12,474                       | 192,186                       | 1,921                | 18 59+                                       | 1 36+   | 17                          |
| Eleventh.....            | 12,928                       | 168,892                       | 4,636                | 18 34+                                       | 1 32+   | 15                          |
| Total—11 districts....   | 1,735,973                    | 30,074,965                    | 1,946,743            | \$17 07+                                     | \$1 50+                                       | 80                          |

In making a comparison of the wages paid in Michigan for farm labor in 1885 with those paid in foreign countries, the very latest reports made by consuls to the Secretary of State at Washington have been used. These reports give the wages paid in 1884. In arriving at the average wages for each of the countries named in Table No. 21, the report of each of the Consuls has been studied and the intention followed of showing the wages larger rather than less where doubt existed.

TABLE NO. 21.—*Showing Farm Wages in Michigan for 1885, and Farm Wages in Sixteen Foreign Countries in 1884.*

| State or Country. | Farm Hands. |                |             |                | Harvest Hands,<br>Per Day. |                |
|-------------------|-------------|----------------|-------------|----------------|----------------------------|----------------|
|                   | Per Month.  |                | Per Day.    |                | With board.                | Without board. |
|                   | With board. | Without board. | With board. | Without board. |                            |                |
| Michigan.....     | \$17 07 +   | \$28 24 +      |             |                | \$1 50 +                   | \$1 92 +       |
| Canada*.....      | 16 10       | 25 25          |             |                |                            |                |
| England†.....     | 11 52       | 16 21          |             |                |                            |                |
| Wales.....        | 10 13       | 16 86          |             |                |                            |                |
| Scotland‡.....    | 12 42       |                |             | \$0 81         |                            |                |
| Ireland.....      | 6 90        | 10 98          |             |                |                            |                |
| France.....       | 7 50        | 16 38          | \$0 44      |                |                            |                |
| Belgium§.....     | 7 25        | 12 00          |             |                |                            |                |
| Austria  .....    | 9 10        | 15 17          |             |                |                            |                |
| Switzerland.....  | 5 75        |                |             |                |                            |                |
| Germany.....      | 4 58        | 13 00          | 56          | 80             | 70                         | 80             |
| Russia.....       | 4 57        |                |             | 41             |                            |                |
| Denmark.....      | 2 75        |                |             |                |                            |                |
| Holland.....      |             |                | 55          |                | 65                         |                |
| Spain.....        |             |                | 24          | 55             |                            | 55             |
| Bohemia¶.....     |             |                |             | 40             |                            |                |
| Italy.....        |             |                | 25          |                |                            |                |

\* These figures are the averages taken from twelve reports of consuls and agents.

† The counties of Gloucester, Wilts, Somerset and Dorset, in west of England, show an average wage, without board, of \$14.04 per month.

‡ Farm wages were higher in Scotland in 1884 than since 1879.

§ In the Consular District of Liege the wage for farm work is \$2.00 per month, with board. This is not computed in above.

|| The lowest wages for farm work in Austria is 24 cents per week, with board, and 72 cents per week without board.

¶ Bohemia is reported "especially an agricultural country," but wages are given by the day.

The opportunity to comment upon the wide difference in wages in various countries is very favorable; after a careful inspection of the preceding table, no doubt can exist as to where the most humanity is exhibited. We have only to deal with Michigan as one of the United States, and therefore make comparisons only with the wages of our own State. To glance at these compari-

sons and assume that the wages in Michigan for farm labor are all that should be paid, is jumping at a conclusion that cannot be justified. While in the foreign countries named the average wages given show very fairly the greatest wages usually paid, the average for Michigan is made up so completely from a large number of towns in the State, that one needs to study the tables showing wages by counties and congressional districts in order to realize that there are counties in which the wages paid are too low. The wage-worker as well as the employer must provide for "beyond to-day." To do so wages must be sufficient to warrant of savings.

As a State, and in a large majority of our towns, the wages paid for farm labor, as shown by our report, are very fair. The temperate, prudent man in such cases should be laying something by.

In strong contrast with our privilege to thus speak of Michigan, is the language of some of the consuls of the United States to foreign lands. We give a few quotations from consular reports received from England, Ireland, Germany and Italy; would space permit similar reports might be given from other countries.

#### CONSULAR REPORTS.

##### ENGLAND.

Col. Albert D. Shaw, United States Consul at Manchester, England, in his report of June 26, 1884, speaking of "Lancashire vs. American Farm Laborers," says :

"The contrast between the average agricultural laborer in the United States and England is sharp enough and most suggestive. Here the laborer furnishes his own food and eats it, as a rule, in the fields. It is plain and cold, and the pot of beer washes it down. In the harvest season large numbers of laborers come over from Ireland and aid in gathering the crops. Their pay averages \$4.00 per week with a daily grant of a pot of beer, and frequently a dish of porridge added. At this pay they must 'find themselves' in food and lodging. The farmer usually sets apart some room for them in an outhouse, where they 'bunk in' at night in the roughest fashion. They cook their own food in the grate furnished by the farmer, and few American laborers could be got to live as these men are compelled to, in order that they may save something to subsist on after returning to Ireland. I have seen hundreds of these poorly-clad and weary-looking laborers making their way back to their homes, after the season here was over, with little bundles of clothing tied up in colored handkerchiefs slung over their scythes, and the sight made my heart sick. They were brave fellows, who manfully did their best, under discouraging conditions, to earn a livelihood, and I could but feel that, if they found it necessary to leave their native Ireland to labor in England as they do at such wages, their condition at home must be pitiful indeed. The contrast to this truthful picture supplied by the way farm laborers in the United States are paid, boarded and treated, is remarkable. It amounts to an entirely different system, and there is room for no fair comparison between the two phases of a farm laborer's life as presented in our country and this."

## IRELAND.

In his report dated Cork, June 26, 1884, Hon. John J. Piatt, Consul at Cork, says:

"Farm laborers, married, receive an average wage of \$4.86 weekly, together with a small house consisting of two rooms, and about an acre of ground, on which he raises potatoes and vegetables for himself and family; and he also receives a certain quantity of coal or turf for fuel. His principal food is homemade bread, gruel made of oat meal or Indian corn meal, and potatoes. On two days, Thursdays and Sundays, meat is used. In sickness he is attended by the dispensary doctor, and when idle, if recommended by the guardians of the local poor-law union as a fit subject, receives a small weekly allowance—if married and having a wife and two or three children—of about 97 cents to \$1.46, until employment is obtained. In case of old age and utter destitution he is assisted by the work-house."

Mr. Piatt also gives the following table of wages as paid agricultural laborers in Cork county:

|  |         |
|--|---------|
| Plowman, with board, per year, average.....    | \$97 33 |
| Plowman, without board, per year, average..... | 146 00  |
| Laborer, with board, per year, average.....    | 68 13   |
| Laborer, without board, per year, average..... | 116 80  |

In the Londonderry district, Hon. Arthur Livermore, Consul, the wages of a cotter, with free cottage, and peat, and potato patch, are given as \$2.91 per week for the year (equal to \$12.61 per month). In the making of the average wages for farm hands in Ireland, we have taken the reports from Cork, Londonderry and Waterford, and find them to be as in the table with other countries in this chapter, except in the case of the "cotter" above referred to. We find, however, no reference to so high a wage as \$4.86 per week, save in the remarks of Mr. Piatt from the Cork district.

## GERMANY.

In a report dated from Frankfort-on-the-Main, June 13, 1884, Consul-General Ferdinand Vogeler writes upon the subject of agricultural labor in Prussia as follows:

"It is impossible to estimate the number of persons engaged as workingmen in agricultural pursuits in the German empire. The persons so engaged, however, may be divided into three classes, viz.: (a.) Free laborers, owning real estate; (b.) Free laborers without real estate; (c.) Laborers bound by contract.

Class a comprises those persons (called in German "Häusler Colonisten" or "Büdner") who own a little house and some land, a small garden and pasture, the income of which, however, is not sufficient to maintain themselves and family, and who are therefore compelled to work on neighboring farms or estates for wages. The amount of land necessary to maintain a family varies with the location. In North Germany a larger area is required than in South Germany. While in the Palatinate an area of five to six acres may suffice to maintain a family, from ten to fifteen acres are required in the less productive portions of Northeastern Germany. Many of these small property owners have learned and followed trades connected with agriculture, such as wagon-making, smithing, horse-shoeing, coopering, or the like, and thus manage to live in comparative comfort.

"Class *b* comprises the great bulk of free agricultural laborers, who own no real estate, and who, therefore, are called tenants, or hirelings. These have no income whatever but their wages, and although these are very fair during harvest time, yet the little savings made in summer are usually lost again in winter, when work is scarce and less remunerative. This class of laborers is at a great disadvantage as against either the small property-owner or the contract laborer. Rent, victuals, fuel, etc., they are compelled to purchase out of their scanty wages, while the small property-owner derives many of these necessities from his own land, and the contract-laborer, on the other hand, receives board and lodging from his employer. The hireling, therefore, will work for comparatively very little, if he be furnished food and lodging. This class of laborers form the greater part of the fluctuating agricultural population which moves in dense masses into those provinces where labor is in demand; for example, into Brandenburg and Saxony at the time of the sugar-beet harvest. Often they are found felling timber, mending roads, quarrying, etc., but in summer they invariably return to the harvest field, and in winter they prefer threshing and other work connected with farming. Ordinarily they rent a piece of land, perhaps an acre or two, raise a hog, keep a cow or goat and some chickens, and thus manage to make a living from one harvest to the other. Their condition is a deplorable one. In age or sickness they are dependent upon public support. Their boast, however, as against the laborer bound by contract, is that they are free men; that if an employer does not suit them they can quit him at a day's notice.

Class *c* consists of the laborers bound by contract. These laborers contract with the farmer or estate owner, usually for a year. They live in small houses, built or owned by the estate owner. In some provinces the necessities furnished comprise seven-eighths of the wages, while in others, for example, in the Duchy of Brunswick, they hardly amount to one-fourth. If the employer requires it, the laborer's wife must also work in the field or in the household, or stables, at a rate of wages agreed upon."

#### HOW A FARM LABORER'S FAMILY LIVES.

##### RECEIPTS AND EXPENDITURES OF A LABORER AND FAMILY DESIGNATED AS CLASS B IN FOREGOING REPORT.

| <i>Receipts.</i>                                      |          |
|---|----------|
| 200 working days of the man.....                      | \$71.40  |
| 30 days' work mowing in harvest time.....             | 14.28    |
| 60 days' work with family hoeing beets, 32 acres..... | 60.92    |
| 200 working days of wife.....                         | 38.08    |
| Total receipts.....                                   | \$184.68 |
| <i>Expenditures.</i>                                  |          |
| Food.   |          |
| Meat per week, 2 pounds.....                          | \$14 28  |
| Butter per week, 1½ pounds.....                       | 18 56    |
| Bread per week, 32 pounds.....                        | 69 02    |
| Other victuals.....                                   | 11 90    |
| Purchase of pig.....                                  | 4 76     |
| Total.....  | \$118 52 |
| Raiment.....  | 23 80    |
| Rent.....   | 11 90    |
| Fuel.....   | 14 28    |
| Sundry expenses.....                                  | 11 90    |
| Total.....  | 61 88    |
| Total expenditures.....                               | \$180 40 |
| Surplus.....  | \$4 28   |

## ITALY.

Consul-General S. H. M. Byers in a most valuable report dated Rome, January 16, 1885, has the following to say with reference to agricultural wages paid in Italy :

"There are no fixed wages for agricultural laborers ; it all depends on agreements between masters and laborers, agreements which are generally broken to suit convenience. Land owners do not hesitate to take advantage of the general destitution of the suffering country people ; they only pay for labor when it is required, and bargains are usually made through sub-managers, the latter frequently compelling peasants to accept provisions instead of money.

"Replying to questions put by a Parliamentary committee of inquiry into the condition of agriculture, especially referring to the manner of lodging agricultural laborers, the following information was obtained : Thirty-five communes, especially in the consular district of Rome, reported a total lack of shelter ; in 53 communes there were straw-covered shelters. To the question, 'On what do the people sleep?' forty-six communes answered 'On the bare ground or on straw.' One hundred and fifty-three communes reported that they slept on a kind of straw bag. Only 75 communes reported that they sleep on regular beds."

---

CHAPTER II.

## RAILROAD EMPLOYEES.

## THEIR NUMBER, OCCUPATIONS AND WAGES IN MICHIGAN IN 1885.

As will be seen by an inspection of the tables in this chapter, the railroads of Michigan present a variety of occupations and a total of employés not equaled by any other one industry made up of a like number of firms or employers.

To secure an accurate statement of numbers employed, with classified occupations and positive wage, must be done by other means than through the work of canvassers. The business habits of railroad employés compel a continual movement of a large number and they could not be caught by canvassers. The Commissioner made personal visits to many engineers, conductors, brakemen and agents, and, in questioning them as to wages, readily concluded that the only accurate report would have to be made from transcripts of the pay-rolls or books of the auditors of the road.

Many of the railroads operating in the State were extensively operating in other States. The Lake Shore and Michigan Southern Railway has main lines or branches in at least six different States. The Wabash, St. Louis and Pacific, and the Grand Trunk, with the Chicago and Northwestern, are very much more extensively operated without than within the State. To secure from these roads the actual number of employés on their lines within the State, and their various wages, would require a considerable clerical labor in the general offices of the roads in excess of that in the offices of roads operated wholly in the State, and which must necessarily be great.



Fully appreciating the amount of work the request would call for, having heard the expressed belief of very many friends of the Bureau that the "soulless corporations" would treat with ill-favor such a showing of their business affairs as was desired, but with a strong faith that the result would prove as shown, letters were addressed to the presidents, general managers or authorized heads of each road named in Table No. 22, making known the wish of the Bureau. The statistics in detail given in this chapter might well be considered proof enough of the willingness of the officials to grant our request, but it is a matter of simple courtesy, coupled with justice, that an acknowledgment is made by the Bureau of the very ready disposition to give the information called for. Replies were received very early from many roads, stating that the proper officers had been ordered to at once begin the work.

The first report received came from the Michigan Central Railroad, showing the largest number of employés of any road in the State. This report covered five sheets of large paper, 56 different occupations, 331 different wages, with a total of 4,995 employés, and was very complete save in the one instance of laborers. In noting this class of employés there is given a total of 1,651, with wages of eleven different amounts. Of these undoubtedly 875 should have been classed as section laborers, with wages at \$1.10 per day. In a few instances the reports came in with average wages given for each class. These were at once returned and new reports made out, with specified wages given.

The reports were all made out in such well arranged and detailed manner that the work of the Bureau in tabulating was made more easy than in the work on other industries.

Besides the report of the Michigan Central, those of the Flint and Pere Marquette Railway; the Detroit, Lansing and Northern; the Chicago and Grand Trunk; the Detroit, Grand Haven and Milwaukee; the Lake Shore and Michigan Southern; the Grand Rapids and Indiana; the Chicago and Northwestern, and Chicago and West Michigan, were so arranged as to give every occupation, of whatever name, even though but one person was engaged in it, and showed great clerical labor.

In strong contrast with the action of the railroads in Michigan is that of some mercantile and manufacturing firms, who flatly refused to give the wages of their employés to our canvassers. The same and only pledge was made by the Bureau to railroads, manufacturers, merchants and workingmen alike, that to so give the facts gained to the public that valuable statistical information would be had, without making public information that might prove prejudicial to any one firm, corporation or person, was our wish. The reports of all roads are made from the pay-rolls of September or October. In the case of the Detroit, Bay City and Alpena Railroad there is not included in their report nearly or quite 400 men engaged in building an extension to the road. This number would make the grand total in the State nearly 19,000 employés of railroads, instead of 18,518 as shown.

Table No. 22 shows the names of the railroads reporting, the number of occupations, the number of various wages and the number of employes of each road, with the total for the State.

In Table No. 23, we show the number receiving each given rate of wages and the average wages for each occupation as reported.

Table No. 24 is condensed from Table No. 23, and shows the total number and average daily or monthly wages of each occupation.

TABLE NO. 22—*Showing names of railroads operated in Michigan; number of employes; number of occupations and number of various wages of each road, as per books in Auditors' Office for months of September or October, 1885.*

| Name of Road.                             | Number of    |                  |            |
|---|--------------|------------------|------------|
|   | Occupations. | Different Wages. | Employees. |
| Michigan Central.....                     | 56           | 331              | 4,995      |
| Chicago and Grand Trunk.....              | 84           | 348              | 1,828      |
| Lake Shore and Michigan Southern.....     | 68           | 232              | 1,496      |
| Grand Rapids and Indiana.....             | 63           | 280              | 1,481      |
| Flint and Pere Marquette.....             | 50           | 244              | 1,439      |
| Detroit, Grand Haven and Milwaukee.....   | 85           | 277              | 1,174      |
| Chicago and Northwestern.....             | 38           | 83               | 1,103      |
| Chicago and West Michigan.....            | 41           | 201              | 1,058      |
| Detroit, Lansing and Northern.....        | 66           | 190              | 864        |
| Marquette, Houghton and Ontonagon.....    | 66           | 160              | 722        |
| Wabash, St. Louis and Pacific.....        | 40           | 92               | 494        |
| Port Huron and Northwestern.....          | 19           | 34               | 445        |
| Grand Trunk.....                          | 31           | 86               | 378        |
| Detroit, Mackinac and Marquette.....      | 24           | 63               | 269        |
| Michigan and Ohio.....                    | 31           | 61               | 170        |
| Toledo, Ann Arbor and North Michigan..... | 19           | 35               | 157        |
| Pontiac, Oxford and Port Austin.....      | 21           | 31               | 115        |
| Detroit, Bay City and Alpena.....         | 13           | 33               | 104        |
| Cincinnati, Wabash and Michigan.....      | 17           | 27               | 70         |
| Saginaw, Tuscola and Huron.....           | 11           | 19               | 54         |
| Saginaw Valley and St. Louis.....         | 16           | 24               | 50         |
| Mineral Range.....                        | 19           | 26               | 30         |
| Paw Paw, Toledo and South Haven.....      | 8            | 10               | 17         |
| St. Joseph Valley.....                    | 4            | 4                | 6          |
| Total number railroad employes.....       |              |                  | 18,518     |

**TABLE NO. 23.—Showing the Total Number of Railroad Employés in Michigan; the Number receiving each given Rate of Wages in each Occupation and the Average Wages by the Day and by the Month.**

| Occupation.                 | Working by the Day. |          | Working by the Month. |           | Total Number. |
|-----------------------------|---------------------|----------|-----------------------|-----------|---------------|
|                             | No.                 | Wages.   | No.                   | Wages.    |               |
| Total Employés.....         | 12,378              |          | 6140                  |           | 18,518        |
| Agents.....                 | 1                   | \$1 00   | 8                     | \$5 00    |               |
| ".....                      | 1                   | 1 25     | 3                     | 6 00      |               |
| ".....                      | 2                   | 1 75     | 1                     | 8 00      |               |
| ".....                      | 1                   | 2 00     | 27                    | 10 00     |               |
| ".....                      | 1                   | 2 75     | 1                     | 10 42     |               |
| ".....                      |                     |          | 1                     | 12 00     |               |
| ".....                      |                     |          | 1                     | 13 00     |               |
| ".....                      |                     |          | 1                     | 14 85     |               |
| ".....                      |                     |          | 17                    | 15 00     |               |
| ".....                      |                     |          | 1                     | 15 75     |               |
| ".....                      |                     |          | 1                     | 17 50     |               |
| ".....                      |                     |          | 4                     | 20 00     |               |
| ".....                      |                     |          | 2                     | 22 50     |               |
| ".....                      |                     |          | 1                     | 23 73     |               |
| ".....                      |                     |          | 18                    | 25 00     |               |
| ".....                      |                     |          | 2                     | 26 00     |               |
| ".....                      |                     |          | 1                     | 26 66     |               |
| ".....                      |                     |          | 1                     | 27 42     |               |
| ".....                      |                     |          | 2                     | 27 50     |               |
| ".....                      |                     |          | 1                     | 28 27     |               |
| ".....                      |                     |          | 24                    | 30 00     |               |
| ".....                      |                     |          | 1                     | 32 00     |               |
| ".....                      |                     |          | 1                     | 32 15     |               |
| ".....                      |                     |          | 1                     | 33 33     |               |
| ".....                      |                     |          | 62                    | 35 00     |               |
| ".....                      |                     |          | 1                     | 35 13     |               |
| ".....                      |                     |          | 1                     | 37 50     |               |
| ".....                      |                     |          | 147                   | 40 00     |               |
| ".....                      |                     |          | 1                     | 40 50     |               |
| ".....                      |                     |          | 1                     | 41 11     |               |
| ".....                      |                     |          | 1                     | 43 04     |               |
| ".....                      |                     |          | 135                   | 45 00     |               |
| ".....                      |                     |          | 1                     | 47 59     |               |
| ".....                      |                     |          | 1                     | 47 93     |               |
| ".....                      |                     |          | 1                     | 49 69     |               |
| ".....                      |                     |          | 102                   | 50 00     |               |
| ".....                      |                     |          | 1                     | 50 96     |               |
| ".....                      |                     |          | 47                    | 55 00     |               |
| ".....                      |                     |          | 1                     | 58 23     |               |
| ".....                      |                     |          | 63                    | 60 00     |               |
| ".....                      |                     |          | 21                    | 65 00     |               |
| ".....                      |                     |          | 2                     | 66 66     |               |
| ".....                      |                     |          | 17                    | 70 00     |               |
| ".....                      |                     |          | 1                     | 74 04     |               |
| ".....                      |                     |          | 27                    | 75 00     |               |
| ".....                      |                     |          | 6                     | 80 00     |               |
| ".....                      |                     |          | 9                     | 83 23     |               |
| ".....                      |                     |          | 3                     | 85 00     |               |
| ".....                      |                     |          | 6                     | 90 00     |               |
| ".....                      |                     |          | 9                     | 100 00    |               |
| ".....                      |                     |          | 2                     | 110 00    |               |
| ".....                      |                     |          | 3                     | 120 30    |               |
| ".....                      |                     |          | 10                    | 125 00    |               |
| ".....                      |                     |          | 4                     | 150 00    |               |
| ".....                      |                     |          | 2                     | 166 67    |               |
| ".....                      |                     |          | 1                     | 175 00    |               |
| ".....                      |                     |          | 1                     | 208 33    |               |
| No. and Av. wages.          | 6                   | \$1.46 + | 811                   | \$47 10 + | 817           |
| Agents and operat's         |                     |          | 1                     | \$30 00   |               |
| ".....                      |                     |          | 4                     | 45 00     |               |
| ".....                      |                     |          | 3                     | 50 00     |               |
| ".....                      |                     |          | 4                     | 55 00     |               |
| Agents and operators.       |                     |          | 1                     | \$70 00   |               |
| ".....                      |                     |          | 1                     | 83 33     |               |
| ".....                      |                     |          | 1                     | 100 00    |               |
| No. and Av. wages.          |                     |          | 15                    | \$55 53 + | 15            |
| Agents, relief.             |                     |          | 1                     | \$55 00   |               |
| ".....                      |                     |          | 1                     | 60 00     |               |
| No. and Av. wages.          |                     |          | 2                     | \$57 50   | 2             |
| Agents, freight.            |                     |          | 1                     | 100 00    |               |
| ".....                      |                     |          | 1                     | 166 67    |               |
| No. and Av. wages.          |                     |          | 2                     | 133 33 +  | 2             |
| Agents, ticket.             |                     |          | 2                     | \$45 00   |               |
| ".....                      |                     |          | 4                     | 50 00     |               |
| ".....                      |                     |          | 2                     | 55 00     |               |
| ".....                      |                     |          | 5                     | 60 00     |               |
| ".....                      |                     |          | 1                     | 66 66     |               |
| ".....                      |                     |          | 4                     | 75 00     |               |
| ".....                      |                     |          | 1                     | 83 33     |               |
| No. and Av. wages.          |                     |          | 19                    | \$60 52 + | 19            |
| Apprentices (unclassified.) | 6                   | \$0 50   |                       |           |               |
| ".....                      | 23                  | 60       |                       |           |               |
| ".....                      | 6                   | 70       |                       |           |               |
| ".....                      | 8                   | 80       |                       |           |               |
| ".....                      | 4                   | 1 00     |                       |           |               |
| No. and Av. wages.          | 47                  | 66 +     |                       |           | 47            |
| Baggagemen, station.        | 1                   | \$0 62½  | 2                     | \$18 75   |               |
| ".....                      | 1                   | 1 00     | 2                     | 20 00     |               |
| ".....                      | 1                   | 1 15     | 3                     | 25 00     |               |
| ".....                      | 5                   | 1 25     | 1                     | 26 66     |               |
| ".....                      | 1                   | 1 37½    | 10                    | 30 00     |               |
| ".....                      | 5                   | 1 50     | 1                     | 32 50     |               |
| ".....                      | 1                   | 1 55     | 13                    | 35 00     |               |
| ".....                      | 1                   | 1 62½    | 2                     | 35 50     |               |
| ".....                      | 2                   | 1 75     | 1                     | 37 50     |               |
| ".....                      |                     |          | 27                    | 40 00     |               |
| ".....                      |                     |          | 1                     | 42 50     |               |
| ".....                      |                     |          | 32                    | 45 00     |               |
| ".....                      |                     |          | 14                    | 50 00     |               |
| ".....                      |                     |          | 1                     | 52 50     |               |
| ".....                      |                     |          | 3                     | 55 00     |               |
| ".....                      |                     |          | 1                     | 60 00     |               |
| ".....                      |                     |          | 1                     | 65 00     |               |
| ".....                      |                     |          | 1                     | 80 00     |               |
| ".....                      |                     |          | 1                     | 90 00     |               |
| No. and Av. wages.          | 18                  | \$1 36 + | 117                   | \$41 45 + | 135           |

TABLE NO. 23.—Continued.

| Occupation.            | Working by the Day. |         | Working by the Month. |          | Total Number. | Occupation.                | Working by the Day. |         | Working by the Month. |         | Total Number. |
|------------------------|---------------------|---------|-----------------------|----------|---------------|----------------------------|---------------------|---------|-----------------------|---------|---------------|
|                        | No.                 | Wages.  | No.                   | Wages.   |               |                            | No.                 | Wages.  | No.                   | Wages.  |               |
| Baggagemen, train..... | 1                   | \$1 40  | 4                     | \$27 50  | .....         | Boilermakers.....          | 1                   | \$2 15  | .....                 | .....   | .....         |
| " ".....               | 3                   | 1 50    | 14                    | 32 00    | .....         | " ".....                   | 1                   | 2 20    | .....                 | .....   | .....         |
| " ".....               | 50                  | 1 75    | 3                     | 35 00    | .....         | " ".....                   | 4                   | 2 25    | .....                 | .....   | .....         |
| " ".....               | 3                   | 1 80    | 1                     | 40 00    | .....         | " ".....                   | 10                  | 2 30    | .....                 | .....   | .....         |
| " ".....               | .....               | .....   | 4                     | 42 50    | .....         | " ".....                   | 7                   | 2 40    | .....                 | .....   | .....         |
| " ".....               | .....               | .....   | 14                    | 45 00    | .....         | " ".....                   | 1                   | 2 45    | .....                 | .....   | .....         |
| " ".....               | .....               | .....   | 37                    | 50 00    | .....         | " ".....                   | 4                   | 2 50    | .....                 | .....   | .....         |
| " ".....               | .....               | .....   | 35                    | 55 00    | .....         | " ".....                   | 3                   | 2 60    | .....                 | .....   | .....         |
| No. and Av. wages....  | 57                  | \$1 73+ | 112                   | \$47 12+ | 169           | " ".....                   | 2                   | 2 70    | .....                 | .....   | .....         |
| Blacksmiths.....       | 9                   | \$1 35  | 1                     | \$100 00 | .....         | " ".....                   | 5                   | 2 75    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 50    | .....                 | .....    | .....         | " ".....                   | 1                   | 2 80    | .....                 | .....   | .....         |
| " ".....               | 4                   | 1 60    | .....                 | .....    | .....         | " ".....                   | 6                   | 2 90    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 65    | .....                 | .....    | .....         | " ".....                   | 2                   | 3 00    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 70    | .....                 | .....    | .....         | No. and Av. wages....      | 69                  | \$2 29+ | 1                     | \$90 00 | 70            |
| " ".....               | 12                  | 1 75    | .....                 | .....    | .....         | Boilermakers' apprentices. | 1                   | \$3 50  | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 80    | .....                 | .....    | .....         | " ".....                   | 2                   | 75      | .....                 | .....   | .....         |
| " ".....               | 4                   | 1 85    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 25    | .....                 | .....   | .....         |
| " ".....               | 4                   | 1 90    | .....                 | .....    | .....         | " ".....                   | 2                   | 1 50    | .....                 | .....   | .....         |
| " ".....               | 6                   | 2 00    | .....                 | .....    | .....         | " ".....                   | 2                   | 1 75    | .....                 | .....   | .....         |
| " ".....               | 1                   | 2 05    | .....                 | .....    | .....         | No. and Av. wages....      | 8                   | \$1 21+ | .....                 | .....   | 8             |
| " ".....               | 2                   | 2 10    | .....                 | .....    | .....         | Boilermakers' helpers      | 3                   | \$0 90  | .....                 | .....   | .....         |
| " ".....               | 5                   | 2 15    | .....                 | .....    | .....         | " ".....                   | 5                   | 1 00    | .....                 | .....   | .....         |
| " ".....               | 6                   | 2 20    | .....                 | .....    | .....         | " ".....                   | 2                   | 1 20    | .....                 | .....   | .....         |
| " ".....               | 9                   | 2 25    | .....                 | .....    | .....         | " ".....                   | 21                  | 1 25    | .....                 | .....   | .....         |
| " ".....               | 7                   | 2 30    | .....                 | .....    | .....         | " ".....                   | 2                   | 1 30    | .....                 | .....   | .....         |
| " ".....               | 1                   | 2 35    | .....                 | .....    | .....         | " ".....                   | 11                  | 1 35    | .....                 | .....   | .....         |
| " ".....               | 2                   | 2 40    | .....                 | .....    | .....         | " ".....                   | 7                   | 1 40    | .....                 | .....   | .....         |
| " ".....               | 24                  | 2 50    | .....                 | .....    | .....         | " ".....                   | 18                  | 1 50    | .....                 | .....   | .....         |
| " ".....               | 2                   | 2 60    | .....                 | .....    | .....         | " ".....                   | 3                   | 1 75    | .....                 | .....   | .....         |
| " ".....               | 3                   | 2 62½   | .....                 | .....    | .....         | " ".....                   | 3                   | 2 00    | .....                 | .....   | .....         |
| " ".....               | 1                   | 2 70    | .....                 | .....    | .....         | No. and Av. wages....      | 75                  | \$1 35+ | .....                 | .....   | 75            |
| " ".....               | 6                   | 2 75    | .....                 | .....    | .....         | Boiler washers.....        | 2                   | \$1 20  | 1                     | \$45 00 | .....         |
| " ".....               | 2                   | 2 90    | .....                 | .....    | .....         | " ".....                   | 2                   | 1 25    | 1                     | 50 00   | .....         |
| " ".....               | 3                   | 3 00    | .....                 | .....    | .....         | " ".....                   | 4                   | 1 50    | .....                 | .....   | .....         |
| No. and Av. wages....  | 117                 | \$2 17+ | 1                     | \$100 00 | 118           | " ".....                   | 2                   | 1 60    | .....                 | .....   | .....         |
| Blacksmiths' Helpers.. | 1                   | \$1 00  | .....                 | .....    | .....         | No. and Av. wages....      | 11                  | \$1 43+ | 2                     | \$47 50 | 13            |
| " ".....               | 2                   | 1 10    | .....                 | .....    | .....         | Bolt cutters.....          | 1                   | \$1 20  | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 20    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 37½   | .....                 | .....   | .....         |
| " ".....               | 18                  | 1 25    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 40    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 30    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 80    | .....                 | .....   | .....         |
| " ".....               | 18                  | 1 35    | .....                 | .....    | .....         | No. and Av. wages....      | 4                   | \$1 44+ | .....                 | .....   | 4             |
| " ".....               | 16                  | 1 40    | .....                 | .....    | .....         | Brakemen.....              | 1                   | \$1 10  | 35                    | \$40 00 | .....         |
| " ".....               | 9                   | 1 45    | .....                 | .....    | .....         | " ".....                   | 98                  | 1 50    | 255                   | 45 00   | .....         |
| " ".....               | 31                  | 1 50    | .....                 | .....    | .....         | " ".....                   | 39                  | 1 55    | 384                   | 50 00   | .....         |
| " ".....               | 1                   | 1 55    | .....                 | .....    | .....         | " ".....                   | 23                  | 1 60    | 4                     | 57 50   | .....         |
| " ".....               | 1                   | 1 60    | .....                 | .....    | .....         | " ".....                   | 55                  | 1 62½   | .....                 | .....   | .....         |
| " ".....               | 3                   | 1 65    | .....                 | .....    | .....         | " ".....                   | 47                  | 1 65    | .....                 | .....   | .....         |
| " ".....               | 9                   | 1 75    | .....                 | .....    | .....         | " ".....                   | 133                 | 1 75    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 85    | .....                 | .....    | .....         | No. and Av. wages....      | 4                   | \$1 44+ | .....                 | .....   | 4             |
| No. and Av. wages....  | 112                 | \$1 42+ | .....                 | .....    | 112           | Boilermakers.....          | 4                   | \$1 25  | 1                     | \$90 00 | .....         |
| Boilermakers.....      | 4                   | \$1 25  | 1                     | \$90 00  | .....         | " ".....                   | 2                   | 1 50    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 70    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 70    | .....                 | .....   | .....         |
| " ".....               | 4                   | 1 75    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 80    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 80    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 85    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 85    | .....                 | .....    | .....         | " ".....                   | 1                   | 1 90    | .....                 | .....   | .....         |
| " ".....               | 1                   | 1 90    | .....                 | .....    | .....         | " ".....                   | 7                   | 2 00    | .....                 | .....   | .....         |
| " ".....               | 7                   | 2 00    | .....                 | .....    | .....         | " ".....                   | 1                   | 2 10    | .....                 | .....   | .....         |
| " ".....               | 1                   | 2 10    | .....                 | .....    | .....         |                            |                     |         |                       |         |               |

TABLE No. 23.—Continued.

| Occupation.                                   | Working by the Day. |         | Working by the Month. |          | Total Number. |
|---|---------------------|---------|-----------------------|----------|---------------|
|   | No.                 | Wages.  | No.                   | Wages.   |               |
| <b>Brakemen—Continued:</b>                    |                     |         |                       |          |               |
| “   | 64                  | \$1 80  |                       |          |               |
| “   | 15                  | 1 90    |                       |          |               |
| “   | 3                   | 2 00    |                       |          |               |
| “   | 20                  | 2 10    |                       |          |               |
| “   | 9                   | 2 65    |                       |          |               |
| No. and Av. wages...                          | 507                 | \$1 67+ | 678                   | \$47 64+ | 1185          |
| <b>Brass finishers</b>                        | 2                   | \$2 00  |                       |          | 2             |
| <b>Brass moulders</b>                         | 1                   | \$1 90  |                       |          |               |
| “   | 1                   | 2 40    |                       |          |               |
| “   | 1                   | 2 50    |                       |          |               |
| No. and Av. wages...                          | 3                   | \$2 26+ |                       |          | 3             |
| <b>Brass moulders' helpers</b>                | 2                   | \$1 00  |                       |          | 2             |
| <b>Bridge carpenters</b>                      | 5                   | \$1 50  |                       |          |               |
| “   | 25                  | 1 75    |                       |          |               |
| “   | 7                   | 1 80    |                       |          |               |
| “   | 6                   | 1 85    |                       |          |               |
| “   | 33                  | 2 00    |                       |          |               |
| “   | 26                  | 2 20    |                       |          |               |
| “   | 19                  | 2 25    |                       |          |               |
| “   | 7                   | 2 30    |                       |          |               |
| “   | 1                   | 2 40    |                       |          |               |
| “   | 11                  | 2 50    |                       |          |               |
| “   | 2                   | 2 75    |                       |          |               |
| No. and Av. wages...                          | 142                 | \$2 04+ |                       |          | 142           |
| <b>Bridge superintendents and supervisors</b> |                     |         | 2                     | \$90 00  |               |
| “   |                     |         | 1                     | 110 00   |               |
| “   |                     |         | 1                     | 175 00   |               |
| No. and Av. wages...                          |                     |         | 4                     | 116 25   | 4             |
| <b>Bridge tenders</b>                         | 5                   | \$1 37½ | 4                     | \$30 00  |               |
| “   | 1                   | 1 40    | 1                     | 50 00    |               |
| “   |                     |         | 1                     | 52 50    |               |
| No. and Av. wages...                          | 6                   | \$1 38+ | 6                     | \$37 08+ | 12            |
| <b>Cabinet-makers</b>                         | 5                   | \$2 00  |                       |          | 5             |
| <b>Callers</b>                                | 1                   | \$1 10  |                       |          | 1             |
| <b>Car checkers</b>                           | 1                   | \$1 00  | 1                     | \$25 00  |               |
| “   | 15                  | 1 25    | 1                     | 40 00    |               |
| “   |                     |         | 1                     | 45 00    |               |
| “   |                     |         | 1                     | 50 00    |               |
| No. and Av. wages...                          | 13                  | \$1 23+ | 4                     | \$40 00  | 17            |
| <b>Car cleaners</b>                           | 1                   | \$0 50  | 1                     | \$5 00   |               |
| “   | 1                   | 75      | 2                     | 10 00    |               |
| “   | 1                   | 90      | 1                     | 25 00    |               |
| “   | 4                   | 95      | 1                     | 30 00    |               |
| “   | 9                   | 1 00    | 7                     | 35 00    |               |
| “   | 18                  | 1 10    | 7                     | 40 00    |               |
| “   | 14                  | 1 15    | 3                     | 45 00    |               |
| “   | 32                  | 1 20    |                       |          |               |
| “   | 19                  | 1 25    |                       |          |               |
| “   | 9                   | 1 40    |                       |          |               |
| “   | 11                  | 1 50    |                       |          |               |
| “   | 11                  | 1 60    |                       |          |               |
| “   | 1                   | 1 75    |                       |          |               |
| “   | 1                   | 2 15    |                       |          |               |
| “   | 1                   | 2 25    |                       |          |               |
| No. and Av. wages...                          | 133                 | \$1 24+ | 22                    | \$33 63+ | 155           |
| <b>Car distributors</b>                       |                     |         | 2                     | 100 00   | 2             |
| <b>Car inspectors</b>                         | 1                   | \$1 25  | 2                     | \$40 00  |               |
| “   | 6                   | 1 30    | 8                     | 45 00    |               |
| “   | 1                   | 1 45    | 2                     | 50 00    |               |
| “   | 9                   | 1 50    | 1                     | 54 00    |               |
| “   | 9                   | 1 60    | 9                     | 60 00    |               |
| “   | 2                   | 1 65    | 1                     | 65 00    |               |
| “   | 3                   | 1 70    | 3                     | 75 00    |               |
| “   | 12                  | 1 75    | 1                     | 80 00    |               |
| “   | 1                   | 2 00    |                       |          |               |
| “   | 1                   | 2 50    |                       |          |               |
| No. and Av. wages...                          | 45                  | \$1 60+ | 27                    | \$55 70  | 72            |
| <b>Car oilers</b>                             | 7                   | \$1 25  |                       |          |               |
| “   | 1                   | 1 37½   |                       |          |               |
| “   | 2                   | 1 40    |                       |          |               |
| No. and Av. wages...                          | 10                  | \$1 29+ |                       |          | 10            |
| <b>Carpenters</b>                             | 2                   | \$1 30  | 1                     | \$65 00  |               |
| “   | 36                  | 1 50    | 1                     | 75 00    |               |
| “   | 1                   | 1 55    | 1                     | 80 00    |               |
| “   | 1                   | 1 60    |                       |          |               |
| “   | 5                   | 1 65    |                       |          |               |
| “   | 76                  | 1 75    |                       |          |               |
| “   | 16                  | 1 80    |                       |          |               |
| “   | 1                   | 1 85    |                       |          |               |
| “   | 1                   | 1 87½   |                       |          |               |
| “   | 28                  | 1 90    |                       |          |               |
| “   | 140                 | 2 00    |                       |          |               |
| “   | 3                   | 2 05    |                       |          |               |
| “   | 5                   | 2 10    |                       |          |               |
| “   | 3                   | 2 12½   |                       |          |               |
| “   | 6                   | 2 15    |                       |          |               |
| “   | 17                  | 2 20    |                       |          |               |
| “   | 68                  | 2 25    |                       |          |               |
| “   | 6                   | 2 40    |                       |          |               |
| “   | 19                  | 2 50    |                       |          |               |
| “   | 6                   | 2 75    |                       |          |               |
| “   | 8                   | 3 00    |                       |          |               |
| No. and Av. wages...                          | 448                 | \$2 04+ | 3                     | \$73 33+ | 451           |

TABLE No. 23.—Continued.

| Occupation.             | Working by the Month. |          | Working by the Day. |           | Total Number. | Occupation.           | Working by the Day. |          | Working by the Month. |           | Total Number. |
|-------------------------|-----------------------|----------|---------------------|-----------|---------------|-----------------------|---------------------|----------|-----------------------|-----------|---------------|
|                         | No.                   | Wages.   | No.                 | Wages.    |               |                       | No.                 | Wages.   | No.                   | Wages.    |               |
| Cashiers.....           |                       |          | 1                   | 40 00     |               | Clerks.....           |                     |          | 1                     | \$26 00   |               |
| ".....                  |                       |          | 2                   | 45 00     |               | ".....                |                     |          | 48                    | 30 00     |               |
| ".....                  |                       |          | 1                   | 47 50     |               | ".....                |                     |          | 3                     | 32 00     |               |
| ".....                  |                       |          | 2                   | 50 00     |               | ".....                |                     |          | 1                     | 32 50     |               |
| ".....                  |                       |          | 1                   | 55 00     |               | ".....                |                     |          | 61                    | 35 00     |               |
| ".....                  |                       |          | 2                   | 60 00     |               | ".....                |                     |          | 1                     | 36 00     |               |
| ".....                  |                       |          | 1                   | 65 00     |               | ".....                |                     |          | 1                     | 37 50     |               |
| ".....                  |                       |          | 1                   | 100 00    |               | ".....                |                     |          | 154                   | 40 00     |               |
| No. and Av. wages....   |                       |          | 11                  | \$56 13 + | 11            | ".....                |                     |          | 3                     | 41 66     |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 1                     | 42 50     |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 129                   | 45 00     |               |
| Cattle loaders.....     |                       |          | 1                   | \$17 00   | 1             | ".....                |                     |          | 1                     | 46 66     |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 100                   | 50 00     |               |
| Car sealers.....        | 3                     | \$1 15   |                     |           |               | ".....                |                     |          | 1                     | 51 66     |               |
| ".....                  | 2                     | 1 20     |                     |           |               | ".....                |                     |          | 1                     | 52 33     |               |
| No. and Av. wages....   | 5                     | \$1 17   |                     |           | 5             | ".....                |                     |          | 63                    | 55 00     |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 1                     | 55 83     |               |
| Car tracers.....        | 1                     | \$1 00   |                     |           | 1             | ".....                |                     |          | 1                     | 56 67     |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 1                     | 58 33     |               |
| Car repairers.....      | 1                     | \$1 00   | 2                   | \$40 00   |               | ".....                |                     |          | 73                    | 60 00     |               |
| ".....                  | 3                     | 1 15     | 8                   | 50 00     |               | ".....                |                     |          | 1                     | 62 50     |               |
| ".....                  | 4                     | 1 20     | 1                   | 55 00     |               | ".....                |                     |          | 1                     | 63 33     |               |
| ".....                  | 13                    | 1 25     |                     |           |               | ".....                |                     |          | 49                    | 65 00     |               |
| ".....                  | 43                    | 1 30     |                     |           |               | ".....                |                     |          | 1                     | 66 00     |               |
| ".....                  | 26                    | 1 35     |                     |           |               | ".....                |                     |          | 5                     | 66 66     |               |
| ".....                  | 30                    | 1 40     |                     |           |               | ".....                |                     |          | 33                    | 70 00     |               |
| ".....                  | 22                    | 1 45     |                     |           |               | ".....                |                     |          | 61                    | 75 00     |               |
| ".....                  | 111                   | 1 50     |                     |           |               | ".....                |                     |          | 11                    | 80 00     |               |
| ".....                  | 2                     | 1 55     |                     |           |               | ".....                |                     |          | 19                    | 83 33     |               |
| ".....                  | 19                    | 1 60     |                     |           |               | ".....                |                     |          | 12                    | 85 00     |               |
| ".....                  | 6                     | 1 65     |                     |           |               | ".....                |                     |          | 6                     | 90 00     |               |
| ".....                  | 15                    | 1 70     |                     |           |               | ".....                |                     |          | 1                     | 91 66     |               |
| ".....                  | 30                    | 1 75     |                     |           |               | ".....                |                     |          | 2                     | 95 00     |               |
| ".....                  | 2                     | 1 80     |                     |           |               | ".....                |                     |          | 23                    | 100 00    |               |
| ".....                  | 41                    | 1 90     |                     |           |               | ".....                |                     |          | 1                     | 104 16    |               |
| ".....                  | 28                    | 2 00     |                     |           |               | ".....                |                     |          | 3                     | 108 33    |               |
| ".....                  | 8                     | 2 25     |                     |           |               | ".....                |                     |          | 4                     | 110 00    |               |
| ".....                  | 6                     | 2 50     |                     |           |               | ".....                |                     |          | 2                     | 115 00    |               |
| ".....                  | 1                     | 2 75     |                     |           |               | ".....                |                     |          | 1                     | 116 66    |               |
| ".....                  | 1                     | 3 00     |                     |           |               | ".....                |                     |          | 3                     | 120 00    |               |
| No. and Av. wages....   | 412                   | \$1 59 + | 11                  | \$48 63 + | 423           | ".....                |                     |          | 12                    | 125 00    |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 10                    | 150 00    |               |
| Car-wheel drillers..... | 1                     | \$1 00   |                     |           |               | No. and Av. wages.... | 15                  | \$1 50 + | 1041                  | \$53 21 + | 1056          |
| ".....                  | 3                     | 1 25     |                     |           |               |                       |                     |          |                       |           |               |
| ".....                  | 1                     | 1 40     |                     |           |               | Civil engineers.....  |                     |          | 1                     | \$40 00   |               |
| ".....                  | 1                     | 1 50     |                     |           |               | ".....                |                     |          | 1                     | 50 00     |               |
| ".....                  | 1                     | 1 70     |                     |           |               | ".....                |                     |          | 1                     | 90 00     |               |
| No. and Av. wages....   | 7                     | \$1 33 + |                     |           | 7             | ".....                |                     |          | 1                     | 130 00    |               |
|                         |                       |          |                     |           |               | ".....                |                     |          | 1                     | 140 00    |               |
| Clerks.....             | 2                     | \$1 00   | 3                   | \$10 00   |               | ".....                |                     |          | 2                     | 150 00    |               |
| ".....                  | 1                     | 1 25     | 1                   | 12 00     |               | ".....                |                     |          | 1                     | 175 00    |               |
| ".....                  | 2                     | 1 40     | 14                  | 15 00     |               | ".....                |                     |          | 1                     | 300 00    |               |
| ".....                  | 5                     | 1 50     | 20                  | 20 00     |               | No. and Av. wages.... |                     |          | 9                     | 136 11 +  | 9             |
| ".....                  | 4                     | 1 75     | 2                   | 22 50     |               |                       |                     |          |                       |           |               |
| ".....                  | 1                     | 2 00     | 26                  | 25 00     |               | Coal heavers.....     | 8                   | \$1 10   | 2                     | \$45 00   |               |
|                         |                       |          |                     |           |               | ".....                | 5                   | 1 15     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 5                   | 1 20     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 2                   | 1 25     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 2                   | 1 37 1/2 |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 1                   | 1 40     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 13                  | 1 50     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 1                   | 1 70     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | 3                   | 1 75     |                       |           |               |
|                         |                       |          |                     |           |               | ".....                | * 2                 |          |                       |           |               |
|                         |                       |          |                     |           |               | No. and Av. wages.... | 42                  | \$1 34 + | 2                     | \$45 00   | 44            |

\* Two paid 15 cents per ton.

TABLE No. 23.—Continued.

| Occupation.                | Working by the Day. |         | Working by the Month. |          | Total Number. |  | Occupation.                   | Working by the Day. |         | Working by the Month. |          | Total Number. |
|----------------------------|---------------------|---------|-----------------------|----------|---------------|--|-------------------------------|---------------------|---------|-----------------------|----------|---------------|
|                            | No.                 | Wages.  | No.                   | Wages.   |               |  |                               | No.                 | Wages.  | No.                   | Wages.   |               |
| Conductors.....            | 4                   | \$1 55  | 1                     | \$35 00  | .....         |  | Dining-car cooks.....         |                     |         | 3                     | \$20 00  | .....         |
| ".....                     | 3                   | 1 75    | 13                    | 50 00    | .....         |  | ".....                        |                     |         | 3                     | 45 00    | .....         |
| ".....                     | 9                   | 1 92    | 7                     | 55 00    | .....         |  | ".....                        |                     |         | 3                     | 60 00    | .....         |
| ".....                     | 13                  | 2 00    | 19                    | 60 00    | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 1                   | 2 12½   | 60                    | 65 00    | .....         |  | No. and Av. wages.....        |                     |         | 9                     | \$41 66+ | 9             |
| ".....                     | 4                   | 2 24    | 103                   | 70 00    | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 1                   | 2 25    | 124                   | 75 00    | .....         |  | Dining-car waiters.....       |                     |         | 12                    | \$25 00  | 12            |
| ".....                     | 19                  | 2 30    | 7                     | 80 00    | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 11                  | 2 35    | 1                     | 81 00    | .....         |  | Dining-room cooks.....        |                     |         | 1                     | \$30 00  | 1             |
| ".....                     | 16                  | 2 50    | 76                    | 83 33    | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 15                  | 2 60    | 6                     | 85 00    | .....         |  | Dining-r'm laundres's.....    |                     |         | 3                     | \$13 00  | 3             |
| ".....                     | 7                   | 2 75    | 27                    | 90 00    | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 21                  | 3 00    | 22                    | 100 00   | .....         |  | Dining-r'm waitresses.....    |                     |         | 11                    | \$12 00  | 11            |
| ".....                     | 13                  | 3 10    |                       |          | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 10                  | 3 15    |                       |          | .....         |  | Dining-room cashiers.....     |                     |         | 1                     | \$20 00  | 1             |
| ".....                     | 3                   | 3 85    |                       |          | .....         |  |                               |                     |         |                       |          |               |
| No. and Av. wages.....     | 150                 | \$2 55+ | 466                   | \$74 97+ | 616           |  | Dining-room managers.....     |                     |         | 1                     | \$83 33  | 1             |
| Coopers.....               | 1                   | \$1 15  | 1                     | \$35 00  | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 2                   | 1 50    |                       |          | .....         |  | Dining-room porters.....      |                     |         | 1                     | \$18 00  | 1             |
| No. and Av. wages.....     | 3                   | \$1 38+ | 1                     | \$35 00  | 4             |  |                               |                     |         |                       |          |               |
| Coppersmiths.....          | 2                   | \$2 00  |                       |          | .....         |  | Draughtsmen.....              | 1                   | \$2 00  |                       |          | .....         |
| ".....                     | 1                   | 2 50    |                       |          | .....         |  | ".....                        | 1                   | 2 50    |                       |          | .....         |
| ".....                     | 1                   | 2 60    |                       |          | .....         |  | ".....                        | 1                   | 2 75    |                       |          | .....         |
| ".....                     | 1                   | 2 65    |                       |          | .....         |  | No. and Av. wages.....        | 3                   | \$2 41+ |                       |          | 3             |
| ".....                     | 1                   | 2 70    |                       |          | .....         |  |                               |                     |         |                       |          |               |
| No. and Av. wages.....     | 6                   | \$2 41+ |                       |          | 6             |  | Draughtman's helper.....      | 1                   | \$0 80  |                       |          | 1             |
| Coppersmith's helpers..... | 1                   | \$0 60  |                       |          | .....         |  |                               |                     |         |                       |          |               |
| ".....                     | 2                   | 1 00    |                       |          | .....         |  | Elevator tenders.....         |                     |         | 2                     | \$15 00  | 2             |
| ".....                     | 1                   | 1 25    |                       |          | .....         |  |                               |                     |         |                       |          |               |
| No. and Av. wages.....     | 4                   | \$0 96+ |                       |          | 4             |  | Engineers (unclassified)..... | 14                  | \$2 00  | 2                     | \$45 00  | .....         |
| Depot masters.....         | 1                   | \$1 50  | 1                     | \$50 00  | .....         |  | ".....                        | 23                  | 2 35    | 1                     | 52 00    | .....         |
| ".....                     | 1                   | 2 00    | 1                     | 60 00    | .....         |  | ".....                        | 34                  | 2 37½   | 1                     | 65 00    | .....         |
| ".....                     |                     |         | 2                     | 75 00    | .....         |  | ".....                        | 35                  | 2 50    | 1                     | 100 00   | .....         |
| ".....                     |                     |         | 1                     | 100 00   | .....         |  | ".....                        | 2                   | 2 70    | 42                    | 110 00   | .....         |
| No. and Av. wages.....     | 2                   | \$1 75  | 5                     | \$72 00  | 7             |  | ".....                        | 2                   | 2 75    |                       |          | .....         |
| Depot matrons.....         | 1                   | \$1 00  |                       |          | 1             |  | ".....                        | 46                  | 3 00    |                       |          | .....         |
| Depot police.....          | 2                   | \$1 15  | 1                     | \$10 00  | .....         |  | ".....                        | 12                  | 3 25    |                       |          | .....         |
| ".....                     |                     |         | 2                     | 50 00    | .....         |  | ".....                        | 196                 | 3 50    |                       |          | .....         |
| ".....                     |                     |         | 2                     | 55 00    | .....         |  | ".....                        | 7                   | 3 75    |                       |          | .....         |
| ".....                     |                     |         | 1                     | 60 00    | .....         |  | ".....                        | 16                  | 4 00    |                       |          | .....         |
| ".....                     |                     |         | 1                     | 70 00    | .....         |  | ".....                        | 1                   | 5 00    |                       |          | .....         |
| No. and Av. wages.....     | 2                   | \$1 15  | 7                     | \$50 00  | 9             |  | No. and Av. wages.....        | 390                 | \$3 07+ | 47                    | 104 84+  | 437           |
|                            |                     |         |                       |          |               |  | Engineers, freight.....       | 3                   | \$2 00  | 2                     | \$80 00  | .....         |
|                            |                     |         |                       |          |               |  | ".....                        | 3                   | 2 25    |                       |          | .....         |

TABLE NO. 23.—Continued.

| Occupation.              | Working by the Day. |         | Working by the Month. |         | Total Number. |  | Occupation.             | Working by the Day. |         | Working by the Month. |          | Total Number. |
|--------------------------|---------------------|---------|-----------------------|---------|---------------|--|-------------------------|---------------------|---------|-----------------------|----------|---------------|
|                          | No.                 | Wages.  | No.                   | Wages.  |               |  |                         | No.                 | Wages.  | No.                   | Wages.   |               |
| Engineers, freight—C'd:  |                     |         |                       |         |               |  | Engine-wipers.....      | 1                   | \$1 60  |                       |          |               |
| “ “ .....                | 3                   | \$2 50  |                       |         |               |  | “ .....                 | 1                   | 1 75    |                       |          |               |
| “ “ .....                | 8                   | 2 75    |                       |         |               |  | “ .....                 | 5                   | 2 00    |                       |          |               |
| “ “ .....                | 1                   | 2 90    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 50                  | 3 00    |                       |         |               |  | No. and Av. wages....   | 184                 | \$1 22+ | 2                     | \$50 00  | 186           |
| “ “ .....                | 12                  | 3 10    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 12                  | 3 25    |                       |         |               |  | Excavator foreman.....  |                     |         | 1                     | 100 00   | 1             |
| “ “ .....                | 73                  | 3 50    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 41                  | 3 60    |                       |         |               |  | Excavator men.....      | 5                   | \$1 75  | 1                     | \$50 00  | 6             |
| “ “ .....                | 23                  | 4 00    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 2                   | 5 00    |                       |         |               |  | Ferry captains.....     |                     |         | 1                     | 115 00   | 1             |
| No. and Av. wages....    | 231                 | \$3 39+ | 2                     | \$80 00 | 223           |  |                         |                     |         |                       |          |               |
| Engineers, passenger...  | 2                   | \$3 15  | 19                    | \$90 00 |               |  | Ferry deckhands.....    |                     |         | 14                    | \$35 00  | 14            |
| “ “ .....                | 17                  | 3 20    | 1                     | 95 00   |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 39                  | 3 25    |                       |         |               |  | Ferry engineers.....    |                     |         | 1                     | \$83 33  |               |
| “ “ .....                | 4                   | 3 40    |                       |         |               |  | “ “ .....               |                     |         | 2                     | 100 00   |               |
| “ “ .....                | 10                  | 3 50    |                       |         |               |  | “ “ .....               |                     |         | 1                     | 115 00   |               |
| “ “ .....                | 12                  | 4 09    |                       |         |               |  | No. and Av. wages....   |                     |         | 4                     | \$99 58+ | 4             |
| No. and Av. wages....    | 84                  | \$3 39+ | 20                    | \$90 25 | 104           |  |                         |                     |         |                       |          |               |
| Engineers, stationary... | *1                  | \$0 85  | 2                     | \$45 00 |               |  | Ferry firemen.....      | 11                  | \$1 40  |                       |          | 11            |
| “ “ .....                | 2                   | 1 25    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 4                   | 1 50    |                       |         |               |  | Ferry greasers.....     |                     |         | 4                     | \$42 00  |               |
| “ “ .....                | 1                   | 1 65    |                       |         |               |  | “ “ .....               |                     |         | 4                     | 54 00    |               |
| “ “ .....                | 2                   | 1 70    |                       |         |               |  | No. and Av. wages....   |                     |         | 8                     | \$48 00  | 8             |
| “ “ .....                | 1                   | 1 75    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 4                   | 2 00    |                       |         |               |  | Ferry mates.....        |                     |         | 4                     | \$83 33  | 4             |
| “ “ .....                | 1                   | 2 05    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 1                   | 2 25    |                       |         |               |  | Ferry wheelmen.....     |                     |         | 4                     | \$45 00  | 4             |
| “ “ .....                | 1                   | 2 70    |                       |         |               |  |                         |                     |         |                       |          |               |
| No. and Av. wages....    | 18                  | \$1 72+ | 2                     | \$45 00 | 20            |  | Firemen (unclassified). | 62                  | \$1 10  | 43                    | \$60 00  |               |
| Engineers, steam shovel  | 1                   | \$3 00  |                       |         | 1             |  | “ “ .....               | 1                   | 1 15    |                       |          |               |
|                          |                     |         |                       |         |               |  | “ “ .....               | 31                  | 1 25    |                       |          |               |
| Engineers, switch.....   | 6                   | \$2 00  | 18                    | \$75 00 |               |  | “ “ .....               | 4                   | 1 40    |                       |          |               |
| “ “ .....                | 12                  | 2 25    |                       |         |               |  | “ “ .....               | 28                  | 1 50    |                       |          |               |
| “ “ .....                | 35                  | 2 50    |                       |         |               |  | “ “ .....               | 18                  | 1 60    |                       |          |               |
| “ “ .....                | 11                  | 2 54    |                       |         |               |  | “ “ .....               | 7                   | 1 62½   |                       |          |               |
| “ “ .....                | 11                  | 2 75    |                       |         |               |  | “ “ .....               | 17                  | 1 65    |                       |          |               |
| No. and Av. wages....    | 75                  | \$2 46+ | 18                    | \$75 00 | 93            |  | “ “ .....               | 53                  | 1 75    |                       |          |               |
| Engine dispatchers.....  | 1                   | \$2 00  |                       |         | 1             |  | “ “ .....               | 12                  | 1 80    |                       |          |               |
|                          |                     |         |                       |         |               |  | “ “ .....               | 162                 | 1 87½   |                       |          |               |
| Engine-wipers.....       | 14                  | \$1 00  | 2                     | \$50 00 |               |  | “ “ .....               | 25                  | 2 00    |                       |          |               |
| “ “ .....                | 29                  | 1 10    |                       |         |               |  | “ “ .....               | 3                   | 2 50    |                       |          |               |
| “ “ .....                | 9                   | 1 12½   |                       |         |               |  | “ “ .....               | 2                   | 2 80    |                       |          |               |
| “ “ .....                | 67                  | 1 15    |                       |         |               |  | No. and Av. wages....   | 425                 | \$1 70+ | 43                    | \$60 00  | 468           |
| “ “ .....                | 27                  | 1 25    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 5                   | 1 35    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 2                   | 1 37½   |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 7                   | 1 40    |                       |         |               |  |                         |                     |         |                       |          |               |
| “ “ .....                | 17                  | 1 50    |                       |         |               |  |                         |                     |         |                       |          |               |

\* Boy.



TABLE No. 23.—Continued.

| Occupation.              | Working by the Day. |          | Working by the Month. |           | Total Number. |
|--------------------------|---------------------|----------|-----------------------|-----------|---------------|
|                          | No.                 | Wages.   | No.                   | Wages.    |               |
| Firemen, freight.....    | 10                  | \$1 50   | 2                     | \$45 00   | ---           |
| " ".....                 | 48                  | 1 60     | ---                   | ---       | ---           |
| " ".....                 | 18                  | 1 62½    | ---                   | ---       | ---           |
| " ".....                 | 5                   | 1 65     | ---                   | ---       | ---           |
| " ".....                 | 88                  | 1 75     | ---                   | ---       | ---           |
| " ".....                 | 44                  | 1 85     | ---                   | ---       | ---           |
| " ".....                 | 4                   | 2 00     | ---                   | ---       | ---           |
| " ".....                 | 23                  | 2 25     | ---                   | ---       | ---           |
| " ".....                 | 2                   | 2 70     | ---                   | ---       | ---           |
| No. and Av. wages....    | 242                 | \$1 78 + | 2                     | \$45 00   | 244           |
| Firemen, passenger.....  | 20                  | \$1 60   | 1                     | \$45 00   | ---           |
| " ".....                 | 56                  | 1 75     | ---                   | ---       | ---           |
| " ".....                 | 10                  | 1 90     | ---                   | ---       | ---           |
| " ".....                 | 5                   | 2 00     | ---                   | ---       | ---           |
| " ".....                 | 16                  | 2 03     | ---                   | ---       | ---           |
| No. and Av. wages....    | 107                 | \$1 79   | 1                     | \$45 00   | 108           |
| Firemen, stationary..... | 3                   | \$1 25   | ---                   | ---       | 3             |
| Firemen, steam shovel.   | 1                   | \$1 50   | ---                   | ---       | 1             |
| Firemen, switch.....     | 20                  | \$1 40   | 16                    | \$49 00   | ---           |
| " ".....                 | 12                  | 1 41     | ---                   | ---       | ---           |
| " ".....                 | 14                  | 1 45     | ---                   | ---       | ---           |
| " ".....                 | 23                  | 1 50     | ---                   | ---       | ---           |
| " ".....                 | 21                  | 1 60     | ---                   | ---       | ---           |
| No. and Av. wages....    | 90                  | \$1 48 + | 16                    | \$49 00   | 106           |
| Flagmen.....             | 10                  | \$1 00   | 4                     | \$25 00   | ---           |
| " ".....                 | 3                   | 1 15     | 17                    | 28 00     | ---           |
| " ".....                 | 11                  | 1 25     | 94                    | 30 0 +    | ---           |
| " ".....                 | 1                   | 1 40     | 2                     | 33 00     | ---           |
| " ".....                 | 2                   | 1 50     | 1                     | 33 33     | ---           |
| " ".....                 | ---                 | ---      | 4                     | 40 00     | ---           |
| No. and Av. wages....    | 27                  | \$1 17 + | 122                   | \$29 77 + | 149           |
| Freight checkers.....    | 4                   | \$1 25   | 2                     | \$40 00   | ---           |
| " ".....                 | 1                   | 1 37½    | 3                     | 45 00     | ---           |
| " ".....                 | ---                 | ---      | 5                     | 50 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 55 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 60 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 65 00     | ---           |
| No. and Av. wages....    | 5                   | \$1 27 + | 13                    | \$49 61 + | 18            |
| Foremen blacksmiths...   | 1                   | \$3 25   | 3                     | \$90 00   | ---           |
| " ".....                 | 1                   | 3 50     | ---                   | ---       | ---           |
| No. and Av. wages....    | 2                   | \$3 37½  | 3                     | \$90 00   | 5             |
| Foremen boiler shops..   | 1                   | \$3 25   | 1                     | \$90 00   | ---           |
| " ".....                 | 1                   | 3 50     | 1                     | 100 00    | ---           |
| No. and Av. wages....    | 2                   | \$3 37½  | 2                     | \$95 00   | 4             |
| Foremen bridge carpenter | 5                   | \$2 00   | 1                     | \$45 00   | ---           |
| " " [ters.               | 1                   | 2 25     | 1                     | 54 00     | ---           |
| " ".....                 | 4                   | 2 75     | 1                     | 58 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 60 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 65 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 75 00     | ---           |
| " ".....                 | ---                 | ---      | 2                     | 80 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 100 00    | ---           |
| " ".....                 | ---                 | ---      | 1                     | 120 00    | ---           |
| " ".....                 | ---                 | ---      | 1                     | 135 00    | ---           |
| No. and Av. wages....    | 10                  | \$2 32 + | 11                    | \$79 29 + | 21            |
| Foremen Carpenters..     | 1                   | \$1 75   | 1                     | \$75 00   | ---           |
| " ".....                 | 3                   | 2 40     | 4                     | 90 00     | ---           |
| " ".....                 | 4                   | 2 50     | 1                     | 95 00     | ---           |
| " ".....                 | 2                   | 2 75     | 1                     | 100 00    | ---           |
| " ".....                 | 1                   | 3 00     | 1                     | 125 00    | ---           |
| " ".....                 | 1                   | 3 25     | 1                     | 150 00    | ---           |
| " ".....                 | 1                   | 3 50     | ---                   | ---       | ---           |
| " ".....                 | 5                   | 3 75     | ---                   | ---       | ---           |
| No. and Av. wages....    | 18                  | \$2 94   | 9                     | 100 55 +  | 27            |
| Foremen car repairers    | ---                 | ---      | 4                     | \$55 00   | ---           |
| " ".....                 | ---                 | ---      | 1                     | 60 00     | ---           |
| " ".....                 | ---                 | ---      | 4                     | 65 00     | ---           |
| " ".....                 | ---                 | ---      | 4                     | 75 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 80 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 85 00     | ---           |
| No. and Av. wages....    | ---                 | ---      | 15                    | \$67 00   | 15            |
| Foremen car shops....    | 1                   | \$1 80   | 4                     | \$65 00   | ---           |
| " ".....                 | 1                   | 2 10     | 3                     | 75 00     | ---           |
| " ".....                 | 3                   | 2 75     | 1                     | 83 33     | ---           |
| " ".....                 | 1                   | 3 00     | 1                     | 84 00     | ---           |
| " ".....                 | 1                   | 4 00     | 1                     | 85 00     | ---           |
| " ".....                 | ---                 | ---      | 1                     | 90 00     | ---           |
| " ".....                 | ---                 | ---      | 3                     | 100 00    | ---           |
| " ".....                 | ---                 | ---      | 1                     | 140 00    | ---           |
| No. and Av. wages....    | 7                   | \$2 73 + | 15                    | \$84 49 + | 22            |
| Foremen coal-heavers.    | ---                 | ---      | 4                     | \$45 00   | ---           |
| " ".....                 | ---                 | ---      | 1                     | 60 00     | ---           |
| No. and Av. wages....    | ---                 | ---      | 5                     | \$48 00   | 5             |

TABLE No. 23.—Continued.

| Occupation.               | Working by the Day. |         | Working by the Month. |          | Total Number. | Occupation.                  | Working by the Day. |         | Working by the Month. |          | Total Number. |
|---------------------------|---------------------|---------|-----------------------|----------|---------------|------------------------------|---------------------|---------|-----------------------|----------|---------------|
|                           | No.                 | Wages.  | No.                   | Wages.   |               |                              | No.                 | Wages.  | No.                   | Wages.   |               |
| Foremen docks.....        |                     |         | 4                     | \$50 00  |               | Foremen painters.....        | 1                   | \$2 50  | 1                     | 100 00   |               |
| “ “.....                  |                     |         | 1                     | 55 00    |               | “ “.....                     | 1                   | 3 00    | 1                     | 110 00   |               |
| “ “.....                  |                     |         | 4                     | 65 00    |               | “ “.....                     | 1                   | 3 25    |                       |          |               |
| “ “.....                  |                     |         | 1                     | 70 00    |               | “ “.....                     | 2                   | 3 50    |                       |          |               |
| “ “.....                  |                     |         | 2                     | 75 00    |               |                              |                     |         |                       |          |               |
| “ “.....                  |                     |         | 1                     | 80 00    |               | No. and Av. wages....        | 5                   | \$3 15  | 2                     | 105 00   | 7             |
| “ “.....                  |                     |         | 1                     | 100 00   |               |                              |                     |         |                       |          |               |
| “ “.....                  |                     |         | 1                     | 140 00   |               |                              |                     |         |                       |          |               |
| No. and Av. wages....     |                     |         | 15                    | \$70 33+ | 15            | Foremen section men..        | 1                   | \$1 16  | 4                     | \$35 00  |               |
|                           |                     |         |                       |          |               | “ “.....                     | 1                   | 1 40    | 105                   | 40 00    |               |
| Foremen engine-houses     | 1                   | \$1 50  | 1                     | \$55 00  |               | “ “.....                     | 17                  | 1 42½   | 2                     | 40 50    |               |
| “ “.....                  | 1                   | 2 00    | 7                     | 65 00    |               | “ “.....                     | 9                   | 1 45    | 207                   | 42 00    |               |
| “ “.....                  | 1                   | 3 00    | 2                     | 75 00    |               | “ “.....                     | 139                 | 1 50    | 113                   | 45 00    |               |
| “ “.....                  |                     |         | 2                     | 83 33    |               | “ “.....                     | 4                   | 1 60    | 100                   | 46 00    |               |
| “ “.....                  |                     |         | 1                     | 90 00    |               | “ “.....                     | 2                   | 1 62½   | 35                    | 50 00    |               |
| “ “.....                  |                     |         | 2                     | 100 00   |               | “ “.....                     | 69                  | 1 65    | 2                     | 51 00    |               |
| No. and Av. wages....     | 3                   | \$2 17+ | 15                    | \$74 44+ | 18            | “ “.....                     | 5                   | 1 70    | 7                     | 55 00    |               |
|                           |                     |         |                       |          |               | “ “.....                     | 5                   | 1 75    | 13                    | 60 00    |               |
| Foremen fence-builders    |                     |         | 1                     | \$50 00  | 1             | “ “.....                     | 9                   | 1 85    | 2                     | 70 00    |               |
|                           |                     |         |                       |          |               | “ “.....                     | 1                   | 1 90    | 1                     | 75 00    |               |
| Foremen freight-houses    |                     |         | 1                     | \$40 00  |               | “ “.....                     | 10                  | 2 00    |                       |          |               |
| “ “.....                  |                     |         | 5                     | 45 00    |               | “ “.....                     | 2                   | 2 12½   |                       |          |               |
| “ “.....                  |                     |         | 3                     | 50 00    |               | “ “.....                     | 5                   | 2 25    |                       |          |               |
| “ “.....                  |                     |         | 3                     | 55 00    |               | “ “.....                     | 5                   | 2 50    |                       |          |               |
| “ “.....                  |                     |         | 5                     | 60 00    |               | “ “.....                     | 2                   | 2 75    |                       |          |               |
| “ “.....                  |                     |         | 3                     | 70 00    |               | “ “.....                     | 1                   | 3 00    |                       |          |               |
| “ “.....                  |                     |         | 1                     | 75 00    |               | No. and Av. wages....        | 287                 | \$1 62+ | 681                   | \$43 51+ | 968           |
| “ “.....                  |                     |         | 1                     | 100 00   |               |                              |                     |         |                       |          |               |
| No. and Av. wages....     |                     |         | 22                    | \$57 50  | 22            | Foremen switchmen....        | 1                   | \$1 75  |                       |          |               |
|                           |                     |         |                       |          |               | “ “.....                     | 4                   | 2 00    |                       |          |               |
| Foremen laborers.....     | 1                   | \$1 50  | 1                     | \$35 00  |               | “ “.....                     | 2                   | 2 35    |                       |          |               |
| “ “.....                  | 1                   | 1 94    |                       |          |               | No. and Av. wages....        | 7                   | \$2 06+ |                       |          | 7             |
| “ “.....                  | 1                   | 2 15    |                       |          |               |                              |                     |         |                       |          |               |
| No. and Av. wages....     | 3                   | \$1 86+ | 1                     | \$35 00  | 4             | Foremen tank-shops...        | 1                   | \$2 50  |                       |          | 1             |
|                           |                     |         |                       |          |               |                              |                     |         |                       |          |               |
| Foremen machinists...     | 11                  | \$2 70  | 1                     | \$75 00  |               | Foremen tin and copper shops | 2                   | \$3 00  |                       |          |               |
| “ “.....                  | 1                   | 3 25    | 3                     | 90 00    |               | “ “.....                     | 1                   | 3 25    |                       |          |               |
| “ “.....                  |                     |         | 2                     | 95 00    |               | No. and Av. wages....        | 3                   | \$3 08+ |                       |          | 3             |
| “ “.....                  |                     |         | 7                     | 100 00   |               |                              |                     |         |                       |          |               |
| “ “.....                  |                     |         | 1                     | 125 00   |               | Foremen warehousemen         |                     |         | 2                     | \$52 00  |               |
| No. and Av. wages....     | 12                  | \$2 74+ | 14                    | \$97 14+ | 26            | “ “.....                     |                     |         | 1                     | 75 00    |               |
|                           |                     |         |                       |          |               | No. and Av. wages....        |                     |         | 3                     | \$59 66+ | 3             |
| Foremen machinists ass'ts | 1                   | \$3 00  |                       |          | 1             |                              |                     |         |                       |          |               |
|                           |                     |         |                       |          |               | Foremen water service        |                     |         | 1                     | \$70 00  |               |
| Foremen Masons.....       | 1                   | \$2 50  |                       |          |               | “ “.....                     |                     |         | 1                     | 75 00    |               |
| “ “.....                  | 1                   | 3 00    |                       |          |               | No. and Av. wages....        |                     |         | 2                     | \$72 50  | 2             |
| No. and Av. wages....     | 2                   | \$2 75  |                       |          | 2             |                              |                     |         |                       |          |               |

TABLE NO. 28.—Continued.

| Occupation.             | Working by the Day. |         | Working by the Month. |          | Total Number. | Occupation.                 | Working by the Day. |         | Working by the Month. |          | Total Number. |
|-------------------------|---------------------|---------|-----------------------|----------|---------------|-----------------------------|---------------------|---------|-----------------------|----------|---------------|
|                         | No.                 | Wages.  | No.                   | Wages.   |               |                             | No.                 | Wages.  | No.                   | Wages.   |               |
| Foremen yardmen.....    |                     |         | 1                     | \$40 00  |               | Janitors, female.....       |                     |         | 1                     | \$15 00  |               |
| " ".....                |                     |         | 1                     | 65 00    |               | " ".....                    |                     |         | 1                     | 25 00    |               |
|                         |                     |         | 4                     | 75 00    |               |                             |                     |         |                       |          |               |
| No. and Av. wages....   |                     |         | 6                     | \$67 50  | 6             | No. and Av. wages....       |                     |         | 2                     | \$20 00  | 2             |
| Foremen (unclassified). |                     |         | 81                    | \$40 00  |               | Janitors, male.....         |                     |         | 5                     | \$40 00  |               |
| " ".....                |                     |         | 2                     | 45 00    |               | " ".....                    |                     |         | 2                     | 45 00    |               |
| " ".....                |                     |         | 4                     | 50 00    |               | " ".....                    |                     |         | 1                     | 50 00    |               |
| " ".....                |                     |         | 2                     | 60 00    |               | " ".....                    |                     |         | 1                     | 60 00    |               |
| " ".....                |                     |         | 2                     | 75 00    |               |                             |                     |         |                       |          |               |
| " ".....                |                     |         | 6                     | 90 00    |               | No. and Av. wages....       |                     |         | 9                     | \$44 44+ | 9             |
| " ".....                |                     |         | 1                     | 91 00    |               |                             |                     |         |                       |          |               |
| " ".....                |                     |         | 2                     | 95 00    |               | Laborers (unclassified)     | 1                   | \$0 75  | 4                     | \$15 00  |               |
| " ".....                |                     |         | 1                     | 100 00   |               | " ".....                    | 1                   | 90      | 1                     | 20 00    |               |
| " ".....                |                     |         | 2                     | 115 00   |               | " ".....                    | 15                  | 1 00    | 4                     | 25 00    |               |
| " ".....                |                     |         | 1                     | 116 66   |               | " ".....                    | 882                 | 1 10    | 3                     | 28 58    |               |
| " ".....                |                     |         | 1                     | 117 54   |               | " ".....                    | 16                  | 1 12½   | 8                     | 30 00    |               |
| No. and Av. wages....   |                     |         | 105                   | \$49 38+ | 105           | " ".....                    | 168                 | 1 15    | 2                     | 35 00    |               |
| Gate-tenders.....       | 2                   | \$0 50  | 2                     | \$30 00  |               | " ".....                    | 115                 | 1 20    | 5                     | 40 00    |               |
| " ".....                | 1                   | 1 00    | 5                     | 50 00    |               | " ".....                    | 742                 | 1 25    | 2                     | 42 50    |               |
| " ".....                | 30                  | 1 25    |                       |          |               | " ".....                    | 23                  | 1 30    | 3                     | 45 00    |               |
| " ".....                | 2                   | 1 37½   |                       |          |               | " ".....                    | 7                   | 1 35    | 1                     | 50 00    |               |
| " ".....                | 1                   | 1 40    |                       |          |               | " ".....                    | 21                  | 1 37½   | 1                     | 60 00    |               |
| " ".....                | 2                   | 1 50    |                       |          |               | " ".....                    | 69                  | 1 40    |                       |          |               |
| No. and Av. wages....   | 38                  | \$1 22+ | 7                     | \$44 28+ | 45            | " ".....                    | 2                   | 1 45    |                       |          |               |
| Grate and pit cleaners. | 5                   | \$1 25  |                       |          | 5             | " ".....                    | 133                 | 1 50    |                       |          |               |
| Heads of departments.   |                     |         | 1                     | 166 66   |               | " ".....                    | 25                  | 1 60    |                       |          |               |
| " ".....                |                     |         | 1                     | 175 00   |               | " ".....                    | 16                  | 1 65    |                       |          |               |
| " ".....                |                     |         | 1                     | 183 33   |               | " ".....                    | 1                   | 1 70    |                       |          |               |
| " ".....                |                     |         | 1                     | 200 00   |               | " ".....                    | 15                  | 1 75    |                       |          |               |
| " ".....                |                     |         | 2                     | 258 33   |               | " ".....                    | 2                   | 1 80    |                       |          |               |
| " ".....                |                     |         | 4                     | 250 00   |               | " ".....                    | 1                   | 2 00    |                       |          |               |
| " ".....                |                     |         | 1                     | 300 00   |               | " ".....                    | 1                   | 2 25    |                       |          |               |
| " ".....                |                     |         | 1                     | 333 33   |               | No. and Av. wages....       | 2256                | \$1 16+ | 34                    | \$32 52+ | 2290          |
| No. and Av. wages....   |                     |         | 12                    | 231 26   | 12            | Laborers, dock.....         | 93                  | \$1 50  |                       |          |               |
| Hostlers.....           | 1                   | \$1 40  |                       |          |               | " ".....                    | 9                   | 1 75    |                       |          |               |
| " ".....                | 1                   | 1 50    |                       |          |               | No. and Av. wages....       | 102                 | \$1 52+ |                       |          | 102           |
| " ".....                | 1                   | 1 75    |                       |          |               | Laborers, track and section | 2                   | \$0 75  |                       |          |               |
| " ".....                | 1                   | 1 80    |                       |          |               | " ".....                    | 6                   | 1 00    |                       |          |               |
| " ".....                | 2                   | 1 85    |                       |          |               | " ".....                    | 1656                | 1 10    |                       |          |               |
| " ".....                | 2                   | 2 00    |                       |          |               | " ".....                    | 437                 | 1 12½   |                       |          |               |
| " ".....                | 1                   | 2 20    |                       |          |               | " ".....                    | 859                 | 1 15    |                       |          |               |
| " ".....                | 1                   | 2 50    |                       |          |               | " ".....                    | 117                 | 1 20    |                       |          |               |
| No. and Av. wages....   | 16                  | \$1 74+ |                       |          | 16            | " ".....                    | 347                 | 1 25    |                       |          |               |
| Interpreter.....        | 1                   | \$1 00  |                       |          | 1             | " ".....                    | 25                  | 1 30    |                       |          |               |
|                         |                     |         |                       |          |               | " ".....                    | 61                  | 1 35    |                       |          |               |
|                         |                     |         |                       |          |               | " ".....                    | 3                   | 1 40    |                       |          |               |
|                         |                     |         |                       |          |               | " ".....                    | 7                   | 1 50    |                       |          |               |
|                         |                     |         |                       |          |               | " ".....                    | 1                   | 1 75    |                       |          |               |
|                         |                     |         |                       |          |               | No. and Av. wages....       | 3521                | \$1 14+ |                       |          | 3521          |
|                         |                     |         |                       |          |               | Laborers, work-train...     | 57                  | \$1 25  |                       |          | 57            |

TABLE NO. 23.—Continued.

| Occupation.             | Working by the Day. |         | Working by the Month. |         | Total Number. | Occupation.              | Working by the Day. |         | Working by the Month. |          | Total Number. |
|-------------------------|---------------------|---------|-----------------------|---------|---------------|--------------------------|---------------------|---------|-----------------------|----------|---------------|
|                         | No.                 | Wages.  | No.                   | Wages.  |               |                          | No.                 | Wages.  | No.                   | Wages.   |               |
| Lamp-cleaners.....      | 3                   | \$1 25  | 1                     | \$6 00  | 4             | Machinists' helpers..... | 3                   | \$0 75  | 2                     | \$15 00  | ---           |
|                         |                     |         |                       |         |               | "                        | 1                   | 1 00    | 1                     | 65 00    | ---           |
| Log-loaders†.....       | 6                   | \$1 00  | 1                     | \$35 00 | ---           | "                        | 11                  | 1 15    | ---                   | ---      | ---           |
| "                       | 14                  | 1 35    | 2                     | 40 00   | ---           | "                        | 1                   | 1 20    | ---                   | ---      | ---           |
| "                       | 1                   | 1 37½   | 1                     | 55 00   | ---           | "                        | 31                  | 1 25    | ---                   | ---      | ---           |
| "                       | 3                   | 1 75    | ---                   | ---     | ---           | "                        | 4                   | 1 30    | ---                   | ---      | ---           |
| "                       | 1                   | 2 05    | ---                   | ---     | ---           | "                        | 10                  | 1 35    | ---                   | ---      | ---           |
| "                       | 1                   | 2 50    | ---                   | ---     | ---           | "                        | 14                  | 1 40    | ---                   | ---      | ---           |
| "                       | 1                   | 3 00    | ---                   | ---     | ---           | "                        | 1                   | 1 45    | ---                   | ---      | ---           |
| No. and Av. wages....   | 27                  | \$1 44+ | 4                     | \$42 50 | 31            | "                        | 36                  | 1 50    | ---                   | ---      | ---           |
|                         |                     |         |                       |         |               | "                        | 24                  | 1 60    | ---                   | ---      | ---           |
| Lumber inspectors.....  | ---                 | ---     | 1                     | \$75 00 | ---           | "                        | 2                   | 1 70    | ---                   | ---      | ---           |
| "                       | ---                 | ---     | 1                     | 85 00   | ---           | "                        | 19                  | 1 75    | ---                   | ---      | ---           |
| No. and Av. wages....   | ---                 | ---     | 2                     | \$80 00 | 2             | "                        | 1                   | 2 00    | ---                   | ---      | ---           |
| Machinists.....         | 10                  | \$1 25  | 1                     | \$45 00 | ---           | No. and Av. wages....    | 158                 | \$1 43+ | 3                     | \$31 66+ | 161           |
| "                       | 1                   | 1 35    | 1                     | 80 00   | ---           | Machine hands.....       | 4                   | \$1 25  | ---                   | ---      | ---           |
| "                       | 1                   | 1 40    | 1                     | 90 00   | ---           | "                        | 1                   | 1 30    | ---                   | ---      | ---           |
| "                       | 11                  | 1 50    | 1                     | 115 00  | ---           | "                        | 3                   | 1 40    | ---                   | ---      | ---           |
| "                       | 2                   | 1 60    | ---                   | ---     | ---           | "                        | 1                   | 1 50    | ---                   | ---      | ---           |
| "                       | 1                   | 1 62½   | ---                   | ---     | ---           | "                        | 1                   | 1 70    | ---                   | ---      | ---           |
| "                       | 4                   | 1 65    | ---                   | ---     | ---           | "                        | 1                   | 1 75    | ---                   | ---      | ---           |
| "                       | 3                   | 1 70    | ---                   | ---     | ---           | "                        | 2                   | 2 00    | ---                   | ---      | ---           |
| "                       | 18                  | 1 75    | ---                   | ---     | ---           | "                        | 1                   | 2 25    | ---                   | ---      | ---           |
| "                       | 6                   | 1 80    | ---                   | ---     | ---           | "                        | 1                   | 2 40    | ---                   | ---      | ---           |
| "                       | 1                   | 1 85    | ---                   | ---     | ---           | "                        | 1                   | 2 50    | ---                   | ---      | ---           |
| "                       | 4                   | 1 90    | ---                   | ---     | ---           | No. and Av. wages....    | 16                  | \$1 66+ | ---                   | ---      | 16            |
| "                       | 1                   | 1 95    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 43                  | 2 00    | ---                   | ---     | ---           | Mail carriers.....       | ---                 | ---     | 6                     | \$5 00   | ---           |
| "                       | 2                   | 2 05    | ---                   | ---     | ---           | "                        | ---                 | ---     | 1                     | 8 00     | ---           |
| "                       | 2                   | 2 10    | ---                   | ---     | ---           | "                        | ---                 | ---     | 1                     | 12 00    | ---           |
| "                       | 13                  | 2 15    | ---                   | ---     | ---           | "                        | ---                 | ---     | 1                     | 15 00    | ---           |
| "                       | 12                  | 2 20    | ---                   | ---     | ---           | No. and Av. wages....    | ---                 | ---     | 9                     | \$7 22+  | 9             |
| "                       | 56                  | 2 25    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 12                  | 2 30    | ---                   | ---     | ---           | Masons.....              | 12                  | \$1 50  | ---                   | ---      | ---           |
| "                       | 3                   | 2 35    | ---                   | ---     | ---           | "                        | 5                   | 1 75    | ---                   | ---      | ---           |
| "                       | 23                  | 2 40    | ---                   | ---     | ---           | "                        | 1                   | 2 25    | ---                   | ---      | ---           |
| "                       | 2                   | 2 45    | ---                   | ---     | ---           | "                        | 12                  | 2 50    | ---                   | ---      | ---           |
| "                       | 50                  | 2 50    | ---                   | ---     | ---           | "                        | 4                   | 3 00    | ---                   | ---      | ---           |
| "                       | 2                   | 2 55    | ---                   | ---     | ---           | "                        | 2                   | 3 25    | ---                   | ---      | ---           |
| "                       | 14                  | 2 60    | ---                   | ---     | ---           | "                        | 7                   | 3 50    | ---                   | ---      | ---           |
| "                       | 1                   | 2 62½   | ---                   | ---     | ---           | "                        | 1                   | 3 75    | ---                   | ---      | ---           |
| "                       | 6                   | 2 65    | ---                   | ---     | ---           | No. and Av. wages....    | 44                  | \$2 40  | ---                   | ---      | 44            |
| "                       | 5                   | 2 70    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 30                  | 2 75    | ---                   | ---     | ---           | Mason's helpers.....     | 2                   | \$1 75  | ---                   | ---      | 2             |
| "                       | 1                   | 2 80    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 4                   | 3 00    | ---                   | ---     | ---           | Master car-builders....  | ---                 | ---     | 1                     | \$166 65 | 1             |
| "                       | 2                   | 3 10    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| No. and Av. wages....   | 355                 | \$2 07+ | 4                     | \$82.50 | 359           | Master mechanics.....    | ---                 | ---     | 1                     | \$70 00  | ---           |
|                         |                     |         |                       |         |               | "                        | ---                 | ---     | 1                     | 85 00    | ---           |
| Machinists' apprentices | 1                   | \$0 60  | ---                   | ---     | ---           | "                        | ---                 | ---     | 1                     | 90 00    | ---           |
| "                       | 1                   | 65      | ---                   | ---     | ---           | "                        | ---                 | ---     | 2                     | 100 00   | ---           |
| "                       | 4                   | 75      | ---                   | ---     | ---           | "                        | ---                 | ---     | 1                     | 125 00   | ---           |
| "                       | 2                   | 90      | ---                   | ---     | ---           | "                        | ---                 | ---     | 2                     | 140 00   | ---           |
| "                       | 6                   | 1 00    | ---                   | ---     | ---           | "                        | ---                 | ---     | ---                   | ---      | ---           |
| "                       | 2                   | 1 12½   | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 5                   | 1 25    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 1                   | 1 40    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| "                       | 3                   | 1 50    | ---                   | ---     | ---           |                          |                     |         |                       |          |               |
| No. and Av. wages....   | 25                  | \$1 05+ | ---                   | ---     | 25            |                          |                     |         |                       |          |               |

† Log loaders boarded in addition to wages.

TABLE NO. 23.—Continued.

| Occupation.               | Working by the Day. |         | Working by the Month. |          | Total Number. |
|---------------------------|---------------------|---------|-----------------------|----------|---------------|
|                           | No.                 | Wages.  | No.                   | Wages.   |               |
| Master mechanics—Con:     |                     |         |                       |          |               |
| “                         |                     |         | 3                     | 150 00   |               |
| “                         |                     |         | 1                     | 200 00   |               |
| “                         |                     |         | 1                     | 208 33   |               |
| No. and Av. wages....     |                     |         | 13                    | 131 38+  | 13            |
| Messengers.....           |                     |         | 4                     | \$5 00   |               |
| “                         |                     |         | 1                     | 6 00     |               |
| “                         |                     |         | 4                     | 8 00     |               |
| “                         |                     |         | 17                    | 10 00    |               |
| “                         |                     |         | 2                     | 13 00    |               |
| “                         |                     |         | 8                     | 15 00    |               |
| “                         |                     |         | 1                     | 17 00    |               |
| “                         |                     |         | 3                     | 20 00    |               |
| “                         |                     |         | 3                     | 25 00    |               |
| “                         |                     |         | 1                     | 32 50    |               |
| “                         |                     |         | 1                     | 35 00    |               |
| “                         |                     |         | 1                     | 50 00    |               |
| No. and Av. wages....     |                     |         | 46                    | \$13 99+ | 46            |
| Moulders.....             | 1                   | \$2 50  |                       |          |               |
| “                         | 1                   | 2 75    |                       |          |               |
| No. and Av. wages....     | 2                   | \$2 62½ |                       |          | 2             |
| Moulder's helper.....     | 1                   | \$1 15  |                       |          | 1             |
| Painters.....             | 2                   | \$1 00  |                       |          |               |
| “                         | 1                   | 1 12½   |                       |          |               |
| “                         | 6                   | 1 25    |                       |          |               |
| “                         | 1                   | 1 35    |                       |          |               |
| “                         | 1                   | 1 40    |                       |          |               |
| “                         | 1                   | 1 45    |                       |          |               |
| “                         | 17                  | 1 50    |                       |          |               |
| “                         | 3                   | 1 60    |                       |          |               |
| “                         | 3                   | 1 70    |                       |          |               |
| “                         | 12                  | 1 75    |                       |          |               |
| “                         | 3                   | 1 80    |                       |          |               |
| “                         | 3                   | 1 90    |                       |          |               |
| “                         | 40                  | 2 00    |                       |          |               |
| “                         | 4                   | 2 10    |                       |          |               |
| “                         | 2                   | 2 20    |                       |          |               |
| “                         | 23                  | 2 25    |                       |          |               |
| “                         | 2                   | 2 35    |                       |          |               |
| “                         | 5                   | 2 40    |                       |          |               |
| “                         | 4                   | 2 50    |                       |          |               |
| “                         | 1                   | 2 80    |                       |          |               |
| “                         | 1                   | 3 00    |                       |          |               |
| “                         | 2                   | 3 08    |                       |          |               |
| No. and Av. wages....     | 137                 | \$1 93+ |                       |          | 137           |
| Painter's helpers.....    | 3                   | \$0 50  |                       |          |               |
| “                         | 1                   | 1 00    |                       |          |               |
| “                         | 11                  | 1 20    |                       |          |               |
| “                         | 6                   | 1 25    |                       |          |               |
| No. and Av. wages....     | 21                  | \$1 10+ |                       |          | 21            |
| Pattern-makers.....       | 1                   | \$2 00  |                       |          |               |
| “                         | 1                   | 2 30    |                       |          |               |
| “                         | 2                   | 2 50    |                       |          |               |
| “                         | 2                   | 2 75    |                       |          |               |
| “                         | 1                   | 3 00    |                       |          |               |
| “                         | 1                   | 3 25    |                       |          |               |
| No. and Av. wages....     | 8                   | \$2 63+ |                       |          | 8             |
| Pattern-maker's help'rs   | 1                   | \$0 50  |                       |          | 1             |
| Porters.....              | 2                   | \$1 00  | 1                     | \$30 00  |               |
| “                         | 11                  | 1 25    | 5                     | 35 00    |               |
| “                         | 1                   | 1 37½   | 23                    | 40 00    |               |
| “                         | 4                   | 1 50    | 4                     | 45 00    |               |
| “                         |                     |         | 1                     | 50 00    |               |
| “                         |                     |         | 1                     | 60 00    |               |
| “                         |                     |         | 1                     | 65 00    |               |
| No. and Av. wages....     | 18                  | \$1 28+ | 36                    | \$41 11+ | 54            |
| Pumpers.....              | 1                   | \$0 50  | 1                     | \$5 00   |               |
| “                         | 2                   | 1 10    | 2                     | 10 00    |               |
| “                         | 1                   | 1 12½   | 1                     | 17 50    |               |
| “                         | 1                   | 1 15    | 4                     | 20 00    |               |
| “                         | 14                  | 1 25    | 1                     | 25 00    |               |
| “                         | 1                   | 1 30    | 1                     | 26 00    |               |
| “                         | 3                   | 1 40    | 20                    | 30 00    |               |
| “                         | 6                   | 1 50    | 7                     | 35 00    |               |
| “                         | 1                   | 1 75    | 14                    | 40 00    |               |
| “                         | 2                   | 2 00    | 1                     | 42 00    |               |
| “                         |                     |         | 37                    | 45 00    |               |
| “                         |                     |         | 2                     | 50 00    |               |
| “                         |                     |         | 1                     | 90 00    |               |
| No. and Av. wages....     | 32                  | \$1 33+ | 92                    | \$37 77+ | 124           |
| Pump repairers.....       | 1                   | \$1 90  |                       |          |               |
| “                         | 1                   | 1 95    |                       |          |               |
| “                         | 3                   | 2 00    |                       |          |               |
| “                         | 1                   | 2 75    |                       |          |               |
| No. and Av. wages....     | 6                   | \$2 10+ |                       |          | 6             |
| Pump and tank inspectors. | 1                   | \$2 50  |                       |          |               |
| “                         | 2                   | 3 00    |                       |          |               |
| No. and Av. wages....     | 3                   | \$2 83+ |                       |          | 3             |
| Road masters.....         |                     |         | 8                     | \$70 00  |               |
| “                         |                     |         | 2                     | 75 00    |               |
| “                         |                     |         | 2                     | 80 00    |               |
| “                         |                     |         | 1                     | 83 33    |               |
| “                         |                     |         | 2                     | 90 00    |               |
| “                         |                     |         | 1                     | 108 35   |               |
| “                         |                     |         | 7                     | 110 00   |               |
| “                         |                     |         | 5                     | 125 00   |               |
| “                         |                     |         | 2                     | 160 00   |               |

TABLE No. 23.—Continued.

| Occupation.              | Working by the Day. |         | Working by the Month. |          | Total Number. | Occupation.           | Working by the Day. |         | Working by the Month. |          | Total Number. |
|--------------------------|---------------------|---------|-----------------------|----------|---------------|-----------------------|---------------------|---------|-----------------------|----------|---------------|
|                          | No.                 | Wages.  | No.                   | Wages.   |               |                       | No.                 | Wages.  | No.                   | Wages.   |               |
| Road masters—Cont'd:     |                     |         |                       |          |               | Switchmen and yardmen |                     |         | 4                     | \$80 00  |               |
| "                        |                     |         | 1                     | 175 00   |               | "                     |                     |         | 1                     | 83 33    |               |
| "                        |                     |         | 1                     | 208 33   |               | "                     |                     |         | 3                     | 85 00    |               |
| No. and Av. wages        |                     |         | 32                    | 104 30   | 32            | No. and Av. wages     |                     |         | 195                   | \$57 23+ | 195           |
| Road master's assist'nts |                     |         | 2                     | \$66 66  |               | Tallymen              |                     |         | 2                     | \$32 50  |               |
| "                        |                     |         | 3                     | 75 00    |               | "                     |                     |         | 6                     | 40 00    |               |
| "                        |                     |         | 5                     | 85 00    |               | No. and Av. wages     |                     |         | 8                     | \$38 12+ | 8             |
| "                        |                     |         | 1                     | 100 00   |               | Target men            | 1                   | \$0 38  | 1                     | \$5 00   |               |
| No. and Av. wages        |                     |         | 11                    | \$80 30+ | 11            | "                     | 1                   | 1 00    | 3                     | 10 00    |               |
| Ship-wrights             | 1                   | \$2 50  |                       |          | 1             | "                     | 2                   | 1 25    | 2                     | 10 50    |               |
| Spring-makers            | 1                   | \$2 50  |                       |          | 1             | "                     | 1                   | 1 50    | 1                     | 12 00    |               |
| Spring-maker's helpers   | 1                   | \$1 50  |                       |          | 1             | "                     | 1                   | 1 80    | 1                     | 20 00    |               |
| Store-keeper             |                     |         |                       |          |               | "                     | 1                   | 2 50    | 1                     | 22 50    |               |
| "                        |                     |         |                       |          |               | "                     |                     |         | 37                    | 30 00    |               |
| "                        |                     |         |                       |          |               | "                     |                     |         | 2                     | 32 00    |               |
| "                        |                     |         |                       |          |               | "                     |                     |         | 4                     | 35 00    |               |
| "                        |                     |         |                       |          |               | "                     |                     |         | 3                     | 40 00    |               |
| No. and Av. wages        |                     |         | 8                     | \$64 16+ | 8             | No. and Av. wages     | 7                   | \$1 37+ | 55                    | \$28 07+ | 62            |
| Switchmen                | 1                   | \$1 00  | 2                     | \$17 50  |               | Teamsters             | 1                   | \$1 00  |                       |          |               |
| "                        | 1                   | 1 15    | 8                     | 32 00    |               | "                     | 1                   | 1 50    |                       |          |               |
| "                        | 1                   | 1 25    | 1                     | 33 33    |               | "                     | 1                   | 1 75    |                       |          |               |
| "                        | 1                   | 1 30    | 3                     | 35 00    |               | No. and Av. wages     | 3                   | \$1 42+ |                       |          | 3             |
| "                        | 1                   | 1 35    | 7                     | 40 00    |               | Telegraph messengers  |                     |         | 1                     | \$10 00  |               |
| "                        | 5                   | 1 50    | 4                     | 45 00    |               | "                     |                     |         | 2                     | 15 00    |               |
| "                        | 3                   | 1 55    | 7                     | 50 00    |               | "                     |                     |         | 1                     | 20 00    |               |
| "                        | 2                   | 1 60    | 11                    | 55 00    |               | No. and Av. wages     |                     |         | 4                     | \$15 00  | 4             |
| "                        | 8                   | 1 65    | 1                     | 60 00    |               | Telegraph operators   | 3                   | \$0 75  | 1                     | \$5 00   |               |
| "                        | 41                  | 1 75    | 2                     | 62 00    |               | "                     | 4                   | 1 25    | 2                     | 15 00    |               |
| "                        | 43                  | 1 80    | 3                     | 65 00    |               | "                     | 2                   | 1 30    | 1                     | 18 33    |               |
| "                        | 12                  | 1 85    |                       |          |               | "                     | 2                   | 1 35    | 4                     | 20 00    |               |
| "                        | 7                   | 1 90    |                       |          |               | "                     | 8                   | 1 50    | 3                     | 22 50    |               |
| "                        | 7                   | 2 00    |                       |          |               | "                     |                     |         | 5                     | 25 00    |               |
| "                        | 7                   | 2 10    |                       |          |               | "                     |                     |         | 8                     | 30 00    |               |
| "                        | 4                   | 2 25    |                       |          |               | "                     |                     |         | 1                     | 32 50    |               |
| "                        | 4                   | 2 50    |                       |          |               | "                     |                     |         | 2                     | 33 75    |               |
| "                        | 1                   | 2 90    |                       |          |               | "                     |                     |         | 47                    | 35 00    |               |
| No. and Av. wages        | 143                 | \$1 88+ | 49                    | \$45 37+ | 192           | "                     |                     |         | 213                   | 40 00    |               |
| Switchmen and yardmen‡   |                     |         | 2                     | \$33 33  |               | "                     |                     |         | 72                    | 45 00    |               |
| "                        |                     |         | 14                    | 40 00    |               | "                     |                     |         | 1                     | 47 93    |               |
| "                        |                     |         | 25                    | 45 00    |               | "                     |                     |         | 51                    | 50 00    |               |
| "                        |                     |         | 19                    | 50 00    |               | "                     |                     |         | 15                    | 55 00    |               |
| "                        |                     |         | 42                    | 55 00    |               | "                     |                     |         | 8                     | 60 00    |               |
| "                        |                     |         | 10                    | 60 00    |               | "                     |                     |         | 5                     | 65 00    |               |
| "                        |                     |         | 62                    | 65 00    |               | "                     |                     |         | 1                     | 66 00    |               |
| "                        |                     |         | 3                     | 70 00    |               | "                     |                     |         | 2                     | 70 00    |               |
| "                        |                     |         | 10                    | 75 00    |               | "                     |                     |         | 5                     | 75 00    |               |
| No. and Av. wages        |                     |         |                       |          |               | "                     |                     |         | 2                     | 80 00    |               |
|                          |                     |         |                       |          |               | "                     |                     |         | 2                     | 83 33    |               |
|                          |                     |         |                       |          |               | "                     |                     |         | 1                     | 90 00    |               |
|                          |                     |         |                       |          |               | "                     |                     |         | 1                     | 100 00   |               |
|                          |                     |         |                       |          |               | No. and Av. wages     | 19                  | \$1 29+ | 453                   | \$42 87+ | 472           |

‡ These were so reported that they could not be separated.

TABLE NO. 23.—Continued.

| Occupation.              | Working by the Day. |          | Working by the Month. |           | Total Number. | Occupation.                             | Working by the Day. |          | Working by the Month. |         | Total Number. |
|--------------------------|---------------------|----------|-----------------------|-----------|---------------|---|---------------------|----------|-----------------------|---------|---------------|
|                          | No.                 | Wages.   | No.                   | Wages.    |               |   | No.                 | Wages.   | No.                   | Wages.  |               |
| Telegraph repairers..... |                     |          | 1                     | \$25 00   |               | Train-masters.....                      |                     |          | 3                     | \$80 10 |               |
| " ".....                 |                     |          | 4                     | 45 00     |               | " ".....                                |                     |          | 1                     | 83 33   |               |
| " ".....                 |                     |          | 3                     | 58 00     |               | " ".....                                |                     |          | 2                     | 90 00   |               |
| " ".....                 |                     |          | 2                     | 60 00     |               | " ".....                                |                     |          | 5                     | 100 00  |               |
| " ".....                 |                     |          | 12                    | 65 00     |               | " ".....                                |                     |          | 2                     | 125 00  |               |
| " ".....                 |                     |          | 2                     | 70 00     |               |   |                     |          |                       |         |               |
| " ".....                 |                     |          | 2                     | 75 00     |               | No. and Av. wages.....                  |                     |          | 13                    | \$96 41 | 13            |
| " ".....                 |                     |          | 1                     | 80 00     |               |   |                     |          |                       |         |               |
| No. and Av. wages.....   |                     |          | 27                    | \$61 07 + | 27            | Trucksmiths.....                        | 1                   | \$1 75   |                       |         |               |
|                          |                     |          |                       |           |               | " ".....                                | 1                   | 2 50     |                       |         |               |
| Ticket inspectors.....   |                     | *        | 2                     | \$50 00   | 2             | No. and Av. wages.....                  | 2                   | \$2 12½  |                       |         | 2             |
| Tinsmiths.....           | 1                   | \$1 25   |                       |           |               | Unclassified employes in car shops..... | 2                   | \$0 80   |                       |         |               |
| " ".....                 | 3                   | 1 50     |                       |           |               | " " ".....                              | 1                   | 85       |                       |         |               |
| " ".....                 | 4                   | 1 75     |                       |           |               | " " ".....                              | 1                   | 1 00     |                       |         |               |
| " ".....                 | 1                   | 1 80     |                       |           |               | " " ".....                              | 3                   | 1 15     |                       |         |               |
| " ".....                 | 2                   | 1 90     |                       |           |               | " " ".....                              | 22                  | 1 25     |                       |         |               |
| " ".....                 | 7                   | 2 00     |                       |           |               | " " ".....                              | 6                   | 1 40     |                       |         |               |
| " ".....                 | 1                   | 2 15     |                       |           |               | " " ".....                              | 15                  | 1 50     |                       |         |               |
| " ".....                 | 2                   | 2 20     |                       |           |               | " " ".....                              | 8                   | 1 60     |                       |         |               |
| " ".....                 | 2                   | 2 25     |                       |           |               | " " ".....                              | 1                   | 1 65     |                       |         |               |
| " ".....                 | 5                   | 2 40     |                       |           |               | " " ".....                              | 2                   | 1 70     |                       |         |               |
| " ".....                 | 2                   | 2 50     |                       |           |               | " " ".....                              | 8                   | 1 75     |                       |         |               |
| " ".....                 | 1                   | 3 00     |                       |           |               | " " ".....                              | 6                   | 1 80     |                       |         |               |
| No. and Av. wages.....   | 31                  | \$2 04 + |                       |           | 31            | " " ".....                              | 2                   | 1 85     |                       |         |               |
|                          |                     |          |                       |           |               | " " ".....                              | 2                   | 1 90     |                       |         |               |
| Tinsmith's helpers.....  | 1                   | \$1 00   |                       |           |               | " " ".....                              | 8                   | 2 00     |                       |         |               |
| " ".....                 | 2                   | 1 25     |                       |           |               | " " ".....                              | 3                   | 2 10     |                       |         |               |
| " ".....                 | 1                   | 1 30     |                       |           |               | " " ".....                              | 1                   | 2 20     |                       |         |               |
| " ".....                 | 1                   | 1 40     |                       |           |               | " " ".....                              | 4                   | 2 25     |                       |         |               |
| " ".....                 | 2                   | 1 60     |                       |           |               | " " ".....                              | 3                   | 2 50     |                       |         |               |
| No. and Av. wages.....   | 7                   | \$1 34 + |                       |           | 7             | No. and Av. wages.....                  | 98                  | \$1 58 + |                       |         | 98            |
| Track supervisors.....   |                     |          | 1                     | \$45 50   |               | Upholsterers.....                       | 1                   | \$1 20   |                       |         |               |
| " ".....                 |                     |          | 1                     | 70 00     |               | " ".....                                | 3                   | 2 00     |                       |         |               |
| " ".....                 |                     |          | 4                     | 75 00     |               | " ".....                                | 4                   | 2 25     |                       |         |               |
| " ".....                 |                     |          | 1                     | 96 00     |               | " ".....                                | 1                   | 2 60     |                       |         |               |
| " ".....                 |                     |          | 1                     | 110 00    |               | " ".....                                | 1                   | 3 00     |                       |         |               |
| No. and Av. wages.....   |                     |          | 8                     | \$77 69 + | 8             | " ".....                                | 1                   | 3 25     |                       |         |               |
| Train dispatchers.....   |                     |          | 1                     | \$16 67   |               | No. and Av. wages.....                  | 11                  | \$2 27 + |                       |         | 11            |
| " ".....                 |                     |          | 1                     | 30 00     |               | Warehouse laborers.....                 | 2                   | \$0 38   | 1                     | \$5 00  |               |
| " ".....                 |                     |          | 1                     | 32 50     |               | " ".....                                | 2                   | 50       | 1                     | 15 00   |               |
| " ".....                 |                     |          | 1                     | 55 00     |               | " ".....                                | 2                   | 75       | 3                     | 35 00   |               |
| " ".....                 |                     |          | 2                     | 60 00     |               | " ".....                                | 3                   | 1 00     |                       |         |               |
| " ".....                 |                     |          | 2                     | 65 00     |               | " ".....                                | 2                   | 1 10     |                       |         |               |
| " ".....                 |                     |          | 8                     | 75 00     |               | " ".....                                | 57                  | 1 15     |                       |         |               |
| " ".....                 |                     |          | 2                     | 80 00     |               | " ".....                                | 63                  | 1 20     |                       |         |               |
| " ".....                 |                     |          | 6                     | 83 33     |               | " ".....                                | 27                  | 1 25     |                       |         |               |
| " ".....                 |                     |          | 1                     | 85 00     |               | " ".....                                | 1                   | 1 35     |                       |         |               |
| " ".....                 |                     |          | 1                     | 95 00     |               | " ".....                                | 2                   | 1 37½    |                       |         |               |
| " ".....                 |                     |          | 9                     | 100 00    |               | " ".....                                | 26                  | 1 50     |                       |         |               |
| " ".....                 |                     |          | 4                     | 105 00    |               | " ".....                                | 1                   | 1 75     |                       |         |               |
| " ".....                 |                     |          | 15                    | 110 00    |               | " ".....                                | 39                  | 2 00     |                       |         |               |
| " ".....                 |                     |          | 3                     | 120 00    |               | No. and Av. wages.....                  | 227                 | \$1 34 + | 5                     | \$25 00 | 232           |
| " ".....                 |                     |          | 5                     | 125 00    |               |   |                     |          |                       |         |               |
| " ".....                 |                     |          | 1                     | 130 00    |               |   |                     |          |                       |         |               |
| " ".....                 |                     |          | 1                     | 175 00    |               |   |                     |          |                       |         |               |
| No. and Av. wages.....   |                     |          | 64                    | \$95 06 + | 64            |   |                     |          |                       |         |               |

TABLE NO. 23.—Continued.

| Occupation.           | Working by the Day. |         | Working by the Month. |          | Total Number. | Occupation.            | Working by the Day. |         | Working by the Month. |          | Total Number. |
|-----------------------|---------------------|---------|-----------------------|----------|---------------|------------------------|---------------------|---------|-----------------------|----------|---------------|
|                       | No.                 | Wages.  | No.                   | Wages.   |               |                        | No.                 | Wages.  | No.                   | Wages.   |               |
| Warehousemen.....     | 1                   | \$1 00  | 1                     | \$25 00  | .....         | Weighmasters.....      |                     |         | 1                     | \$75 00  | 1             |
| ".....                | 1                   | 1 10    | 15                    | 30 00    | .....         |                        |                     |         |                       |          |               |
| ".....                | 14                  | 1 25    | 22                    | 32 00    | .....         | No. and Av. wages..... |                     |         | 3                     | \$58 33  | 3             |
| ".....                | 1                   | 1 35    | 3                     | 35 00    | .....         |                        |                     |         |                       |          |               |
| ".....                | 5                   | 1 40    | 1                     | 38 75    | .....         | Weighmen.....          |                     |         | 6                     | \$33 00  | 6             |
| ".....                | 18                  | 1 50    | 11                    | 40 00    | .....         |                        |                     |         |                       |          |               |
| ".....                | 6                   | 1 60    | 6                     | 45 00    | .....         | Wheel-pressers.....    | 1                   | \$1 60  |                       |          |               |
| ".....                | 1                   | 1 75    | 10                    | 50 00    | .....         | ".....                 | 2                   | 1 70    |                       |          |               |
| ".....                | 1                   | 2 00    | 3                     | 55 00    | .....         |                        |                     |         |                       |          |               |
| ".....                |                     |         | 1                     | 60 00    | .....         | No. and Av. wages..... | 3                   | \$1 66+ |                       |          | 3             |
| ".....                |                     |         | 1                     | 65 00    | .....         |                        |                     |         |                       |          |               |
| ".....                |                     |         | 1                     | 70 00    | .....         | Wood machinists.....   | *1                  | \$0 75  |                       |          |               |
| ".....                |                     |         | 2                     | 75 00    | .....         | ".....                 | 5                   | 1 25    |                       |          |               |
| No. and Av. wages.... | 48                  | \$1 42+ | 77                    | \$39 51+ | 125           | ".....                 | 1                   | 1 40    |                       |          |               |
|                       |                     |         |                       |          |               | ".....                 | 5                   | 1 50    |                       |          |               |
| Watchmen.....         | 2                   | \$1 12½ | 1                     | \$25 00  | .....         | ".....                 | 1                   | 1 65    |                       |          |               |
| ".....                | 1                   | 1 15    | 25                    | 30 00    | .....         | ".....                 | 6                   | 1 75    |                       |          |               |
| ".....                | 46                  | 1 25    | 6                     | 32 00    | .....         | ".....                 | 4                   | 1 90    |                       |          |               |
| ".....                | 1                   | 1 34    | 12                    | 35 00    | .....         | ".....                 | 2                   | 2 00    |                       |          |               |
| ".....                | 1                   | 1 35    | 23                    | 40 00    | .....         | ".....                 | 1                   | 2 10    |                       |          |               |
| ".....                | 1                   | 1 37½   | 10                    | 45 00    | .....         | No. and Av. wages..... | 26                  | \$1 60+ |                       |          | 26            |
| ".....                | 3                   | 1 40    | 3                     | 50 00    | .....         |                        |                     |         |                       |          |               |
| ".....                | 14                  | 1 50    | 1                     | 55 00    | .....         | Yard-masters.....      | 1                   | \$1 75  | 3                     | \$45 00  | .....         |
| ".....                | 1                   | 1 60    |                       |          | .....         | ".....                 | 5                   | 2 00    | 4                     | 50 00    | .....         |
| ".....                | 1                   | 1 65    |                       |          | .....         | ".....                 | 4                   | 2 25    | 3                     | 55 00    | .....         |
| No. and Av. wages.... | 71                  | \$1 30+ | 81                    | \$36 56  | 152           | ".....                 | 1                   | 2 50    | 15                    | 60 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 | 1                   | 2 80    | 7                     | 65 00    | .....         |
| Watchmen, bridge..... | 9                   | \$1 00  | 1                     | \$26 00  | .....         | ".....                 | 1                   | 3 00    | 1                     | 65 00    | .....         |
| ".....                | 1                   | 1 25    | 2                     | 30 00    | .....         | ".....                 |                     |         | 9                     | 70 00    | .....         |
| ".....                | 1                   | 1 30    | 1                     | 34 00    | .....         | ".....                 |                     |         | 5                     | 75 00    | .....         |
| ".....                |                     |         | 1                     | 36 00    | .....         | ".....                 |                     |         | 3                     | 80 00    | .....         |
| No. and Av. wages.... | 11                  | \$1 05+ | 5                     | \$31 20  | 16            | ".....                 |                     |         | 2                     | 83 33    | .....         |
|                       |                     |         |                       |          |               | ".....                 |                     |         | 2                     | 85 00    | .....         |
| Watchmen, engine..... | 9                   | \$1 35  | 1                     | \$30 00  | .....         | ".....                 |                     |         | 2                     | 100 00   | .....         |
| ".....                |                     |         | 2                     | 40 00    | .....         | ".....                 |                     |         | 1                     | 105 00   | .....         |
| No. and Av. wages.... | 9                   | \$1 35  | 3                     | \$36 66+ | 12            | ".....                 |                     |         | 1                     | 125 00   | .....         |
|                       |                     |         |                       |          |               | No. and Av. wages..... | 13                  | \$2 23+ | 58                    | \$67 80+ | 71            |
| Watchmen, shop.....   | 4                   | \$1 50  | 3                     | \$45 00  | .....         |                        |                     |         |                       |          |               |
| ".....                |                     |         | 1                     | 50 00    | .....         | Yard-men.....          | 1                   | \$1 00  | 3                     | \$35 00  | .....         |
| No. and Av. wages.... | 4                   | \$1 50  | 4                     | \$46 25  | 8             | ".....                 | 15                  | 1 25    | 1                     | 40 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 | 2                   | 1 50    | 3                     | 42 00    | .....         |
| Water boys.....       | 1                   | \$0 75  |                       |          | 1             | ".....                 | 9                   | 2 25    | 1                     | 44 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 | 1                   | 2 50    | 1                     | 45 00    | .....         |
| Weighmasters.....     |                     |         | 2                     | \$50 00  | 2             | ".....                 |                     |         | 3                     | 46 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 |                     |         | 1                     | 50 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 |                     |         | 3                     | 65 00    | .....         |
|                       |                     |         |                       |          |               | ".....                 |                     |         | 3                     | 70 00    | .....         |
|                       |                     |         |                       |          |               | No. and Av. wages..... | 28                  | \$1 62+ | 19                    | \$50 15  | 47            |

• Boy.



**TABLE NO. 24.—Showing Occupations; Number of each Occupation working by Day or Month, with Average Daily or Monthly Wages for the entire State of all Employés reported as working for 24 Railroads in Michigan in September or October, 1885.**

| Occupation.                                 | Working by the Day. |                | Working by the Month. |                | Total Number. |
|---|---------------------|----------------|-----------------------|----------------|---------------|
|   | Number.             | Average Wages. | Number.               | Average Wages. |               |
| Total employés.....                         | 12,378              |                | 6,140                 |                | 18,518        |
| Agents.....                                 | 6                   | \$1 46+        | 811                   | \$47 10+       | 817           |
| Agents and operators.....                   |                     |                | 15                    | 55 53+         | 15            |
| Agents, relief.....                         |                     |                | 2                     | 57 50          | 2             |
| Agents, freight.....                        |                     |                | 2                     | 133 33+        | 2             |
| Agents, ticket.....                         |                     |                | 19                    | 60 52+         | 19            |
| Apprentices (unclassified).....             | 47                  | 66+            |                       |                | 47            |
| Baggagemen, station.....                    | 18                  | 1 36+          | 117                   | 41 45+         | 135           |
| Baggagemen, trait.....                      | 57                  | 1 73+          | 112                   | 47 12+         | 169           |
| Blacksmiths.....                            | 117                 | 2 17+          | 1                     | 100 00         | 118           |
| Blacksmiths' helpers.....                   | 112                 | 1 42+          |                       |                | 112           |
| Boilermakers.....                           | 69                  | 2 29+          | 1                     | 90 00          | 70            |
| Boilermakers' apprentices.....              | 8                   | 1 21+          |                       |                | 8             |
| Boilermakers' helpers.....                  | 75                  | 1 35+          |                       |                | 75            |
| Boiler-washers.....                         | 11                  | 1 43+          | 2                     | 47 50          | 13            |
| Bolt-cutters.....                           | 4                   | 1 44+          |                       |                | 4             |
| Brakemen.....                               | 507                 | 1 67+          | 678                   | 47 64+         | 1,185         |
| Brass-finishers.....                        | 2                   | 2 00           |                       |                | 2             |
| Brass-moulders.....                         | 3                   | 2 26+          |                       |                | 3             |
| Brass-moulders, helpers.....                | 2                   | 1 00           |                       |                | 2             |
| Bridge carpenters.....                      | 142                 | 2 04+          |                       |                | 142           |
| Bridge superintendents and supervisors..... |                     |                | 4                     | 116 25         | 4             |
| Bridge tenders.....                         | 6                   | 1 38+          | 6                     | 37 08+         | 12            |
| Cabinetmakers.....                          | 5                   | 2 00           |                       |                | 5             |
| Caller.....                                 | 1                   | 1 10           |                       |                | 1             |
| Car checkers.....                           | 13                  | 1 23+          | 4                     | 40 00          | 17            |
| Car cleaners.....                           | 133                 | 1 24+          | 22                    | 33 63+         | 155           |
| Car distributors.....                       |                     |                | 2                     | 100 00         | 2             |
| Car inspectors.....                         | 45                  | 1 60+          | 27                    | 55 70          | 72            |
| Car oilers.....                             | 10                  | 1 29+          |                       |                | 10            |
| Carpenters.....                             | 448                 | 2 04+          | 3                     | 73 33+         | 451           |
| Cashiers.....                               |                     |                | 11                    | 56 13+         | 11            |
| Cattle loaders.....                         |                     |                | 1                     | 17 00          | 1             |
| Car sealers.....                            | 5                   | 1 17           |                       |                | 5             |
| Car tracer.....                             | 1                   | 1 00           |                       |                | 1             |
| Car repairers.....                          | 412                 | 1 59+          | 11                    | 48 63+         | 423           |
| Car-wheel drillers.....                     | 7                   | 1 33+          |                       |                | 7             |
| Clerks.....                                 | 15                  | 1 50+          | 1,041                 | 53 21+         | 1,056         |
| Civil engineers.....                        |                     |                | 9                     | 136 11+        | 9             |
| Coal heavers.....                           | 42                  | 1 34+          | 2                     | 45 00          | 44            |
| Conductors.....                             | 150                 | 2 55+          | 466                   | 74 97+         | 616           |
| Coopers.....                                | 3                   | 1 38+          | 1                     | 35 00          | 4             |
| Coppersmiths.....                           | 6                   | 2 41+          |                       |                | 6             |
| Coppersmiths' helpers.....                  | 4                   | 96+            |                       |                | 4             |
| Depot masters.....                          | 2                   | 1 75           | 5                     | 72 00          | 7             |
| Depot matron.....                           | 1                   | 1 00           |                       |                | 1             |
| Depot police.....                           | 2                   | 1 15           | 7                     | 50 00+         | 9             |
| Dining-car cooks.....                       |                     |                | 9                     | 41 67+         | 9             |
| Dining-car waiters.....                     |                     |                | 12                    | 25 00          | 12            |
| Dining-room cooks.....                      |                     |                | 1                     | 30 00          | 1             |
| Dining-room laundresses.....                |                     |                | 3                     | 13 00          | 3             |
| Dining-room waitresses.....                 |                     |                | 11                    | 12 00          | 11            |
| Dining-room cashiers.....                   |                     |                | 1                     | 20 00          | 1             |
| Dining-room managers.....                   |                     |                | 1                     | 83 33          | 1             |
| Dining-room porters.....                    |                     |                | 1                     | 18 00          | 1             |
| Draughtsmen.....                            | 3                   | 2 41+          |                       |                | 3             |

TABLE NO. 24.—Continued.

| Occupation.                          | Working by the Day. |                | Working by the Month. |                | Total.<br>Number. |
|--------------------------------------|---------------------|----------------|-----------------------|----------------|-------------------|
|                                      | Number.             | Average Wages. | Number.               | Average Wages. |                   |
| Draughtsman's helper .....           | 1                   | \$0 80         |                       |                | 1                 |
| Elevator tenders .....               |                     |                | 2                     | \$15 00        | 2                 |
| Engineers (unclassified) .....       | 390                 | 3 07 +         | 47                    | 104 84 +       | 437               |
| Engineers, freight .....             | 231                 | 3 39 +         | 2                     | 80 00          | 233               |
| Engineers, passenger .....           | 84                  | 3 39 +         | 20                    | 90 25          | 104               |
| Engineers, stationary .....          | 18                  | 1 72 +         | 2                     | 45 00          | 20                |
| Engineer, steam shovel .....         | 1                   | 3 00           |                       |                | 1                 |
| Engineers, switch .....              | 75                  | 2 46 +         | 18                    | 75 00          | 93                |
| Engine dispatchers .....             | 1                   | 2 00           |                       |                | 1                 |
| Engine wipers .....                  | 184                 | 1 22 +         | 2                     | 50 00          | 186               |
| Excavator foreman .....              |                     |                | 1                     | 100 00         | 1                 |
| Excavator men .....                  | 5                   | 1 75           | 1                     | 50 00          | 6                 |
| Ferry captains .....                 |                     |                | 1                     | 115 00         | 1                 |
| Ferry deck hands .....               |                     |                | 14                    | 35 00          | 14                |
| Ferry engineers .....                |                     |                | 4                     | 99 58 +        | 4                 |
| Ferry firemen .....                  | 11                  | 1 40           |                       |                | 11                |
| Ferry greasers .....                 |                     |                | 8                     | 48 00          | 8                 |
| Ferry mates .....                    |                     |                | 4                     | 83 33          | 4                 |
| Ferry wheelmen .....                 |                     |                | 4                     | 45 00          | 4                 |
| Firemen (unclassified) .....         | 425                 | 1 70 +         | 43                    | 60 00          | 468               |
| Firemen, freight .....               | 242                 | 1 78 +         | 2                     | 45 00          | 244               |
| Firemen, passenger .....             | 107                 | 1 79           | 1                     | 45 00          | 108               |
| Firemen, stationary .....            | 3                   | 1 25           |                       |                | 3                 |
| Fireman, steam shovel .....          | 1                   | 1 50           |                       |                | 1                 |
| Firemen, switch .....                | 90                  | 1 48 +         | 16                    | 49 00          | 106               |
| Flagmen .....                        | 27                  | 1 17 +         | 122                   | 29 77 +        | 149               |
| Freight checkers .....               | 5                   | 1 27 +         | 13                    | 49 61 +        | 18                |
| Foremen, blacksmiths .....           | 2                   | 3 37 ½         | 3                     | 90 00          | 5                 |
| " boiler shops .....                 | 2                   | 3 37 ½         | 2                     | 95 00          | 4                 |
| " bridge carpenters .....            | 10                  | 2 32 +         | 11                    | 79 29 +        | 21                |
| Foremen, carpenters .....            | 18                  | 2 94           | 9                     | 100 55 +       | 27                |
| " car repairers .....                |                     |                | 15                    | 67 00          | 15                |
| " car shops .....                    | 7                   | 2 73 +         | 15                    | 84 49 +        | 22                |
| " coal heavers .....                 |                     |                | 5                     | 48 00          | 5                 |
| " docks .....                        |                     |                | 15                    | 70 33 +        | 15                |
| Foremen, engine houses .....         | 3                   | 2 17 +         | 15                    | 74 44 +        | 18                |
| " fence builders .....               |                     |                | 1                     | 50 00          | 1                 |
| " freight houses .....               |                     |                | 22                    | 57 50          | 22                |
| " laborers .....                     | 3                   | 1 86 +         | 1                     | 35 00          | 4                 |
| " machinists .....                   | 12                  | 2 74 +         | 14                    | 97 14 +        | 26                |
| Foremen, machinist's assistant ..... | 1                   | 3 00           |                       |                | 1                 |
| " masons .....                       | 2                   | 2 75           |                       |                | 2                 |
| " painters .....                     | 5                   | 3 15           | 2                     | 105 00         | 7                 |
| " sectionmen .....                   | 287                 | 1 62 +         | 681                   | 43 51 +        | 968               |
| " switchmen .....                    | 7                   | 2 06 +         |                       |                | 7                 |
| Foremen, tank shops .....            | 1                   | 2 50           |                       |                | 1                 |
| " tin and copper shops .....         | 3                   | 3 08 +         |                       |                | 3                 |
| " water service .....                |                     |                | 2                     | 72 50          | 2                 |
| " warehousemen .....                 |                     |                | 3                     | 59 66 +        | 3                 |
| " yardmen .....                      |                     |                | 6                     | 67 50          | 6                 |
| Foremen (unclassified) .....         |                     |                | 105                   | 49 38          | 105               |
| Gate tenders .....                   | 38                  | 1 22           | 7                     | 44 28          | 45                |
| Grate and pit cleaners .....         | 5                   | 1 25           |                       |                | 5                 |
| Heads of departments .....           |                     |                | 12                    | 231 26         | 12                |
| Hostlers .....                       | 16                  | 1 74 +         |                       |                | 16                |
| Interpreter .....                    | 1                   | 1 00           |                       |                | 1                 |
| Janitors, female .....               |                     |                | 2                     | 20 00          | 2                 |
| " male .....                         |                     |                | 9                     | 44 44 +        | 9                 |
| Laborers (unclassified) .....        | 2,256               | 1 16 +         | 34                    | 32 52 +        | 2,290             |
| " dock .....                         | 102                 | 1 52           |                       |                | 102               |
| Laborers, track and section .....    | 3,521               | 1 14 +         |                       |                | 3,521             |

TABLE NO. 24.—Continued.

| Occupation.                             | Working by the Day. |                | Working by the Month. |                | Total Number. |
|---|---------------------|----------------|-----------------------|----------------|---------------|
|   | Number.             | Average Wages. | Number.               | Average Wages. |               |
| Laborers, work train.....               | 57                  | \$1 25         | —                     | —              | 57            |
| Lamp cleaners.....                      | 3                   | 1 25           | 1                     | \$6 00         | 4             |
| Log loaders*.....                       | 27                  | 1 44+          | 4                     | 42 50+         | 31            |
| Lumber inspectors.....                  | —                   | —              | 2                     | 80 00          | 2             |
| Machinists.....                         | 355                 | 2 07+          | 4                     | 82 50          | 359           |
| Machinists' apprentices.....            | 25                  | 1 05+          | —                     | —              | 25            |
| "    helpers.....                       | 158                 | 1 43+          | 3                     | 31 66+         | 161           |
| Machine hands.....                      | 16                  | 1 66+          | —                     | —              | 16            |
| Mail carriers.....                      | —                   | —              | 9                     | 7 22+          | 9             |
| Masons.....                             | 44                  | 2 40+          | —                     | —              | 44            |
| Masons' helpers.....                    | 2                   | 1 75           | —                     | —              | 2             |
| Master car builder.....                 | —                   | —              | 1                     | 166 65         | 1             |
| Master mechanics.....                   | —                   | —              | 13                    | 131 38+        | 13            |
| Messengers.....                         | —                   | —              | 46                    | 13 99          | 46            |
| Moulders.....                           | 2                   | 2 62½          | —                     | —              | 2             |
| Moulders' helper.....                   | 1                   | 1 15           | —                     | —              | 1             |
| Painters.....                           | 137                 | 1 93+          | —                     | —              | 137           |
| "    helpers.....                       | 21                  | 1 10+          | —                     | —              | 21            |
| Patternmakers.....                      | 8                   | 2 63+          | —                     | —              | 8             |
| Patternmakers' helper.....              | 1                   | 50             | —                     | —              | 1             |
| Porters.....                            | 18                  | 1 28+          | 36                    | 41 11+         | 54            |
| Pumpers.....                            | 32                  | 1 33+          | 92                    | 37 77+         | 124           |
| Pump repairers.....                     | 6                   | 2 10           | —                     | —              | 6             |
| Pump and tank inspectors.....           | 3                   | 2 83+          | —                     | —              | 3             |
| Road masters.....                       | —                   | —              | 32                    | 104 30+        | 32            |
| Road masters' assistants.....           | —                   | —              | 11                    | 80 30+         | 11            |
| Shipwright.....                         | 1                   | 2 50           | —                     | —              | 1             |
| Springmaker.....                        | 1                   | 2 50           | —                     | —              | 1             |
| "    helper.....                        | 1                   | 1 50           | —                     | —              | 1             |
| Store-keepers.....                      | —                   | —              | 8                     | 64 16+         | 8             |
| Switchmen.....                          | 143                 | 1 86+          | 49                    | 45 37+         | 192           |
| Switchmen and yardmen.....              | —                   | —              | 195                   | 57 23+         | 195           |
| Tallymen.....                           | —                   | —              | 8                     | 38 12+         | 8             |
| Targetmen.....                          | 7                   | 1 37+          | 55                    | 28 07+         | 62            |
| Teamsters.....                          | 3                   | 1 42+          | —                     | —              | 3             |
| Telegraph messengers.....               | —                   | —              | 4                     | 15 00          | 4             |
| Telegraph operators.....                | 19                  | 1 29+          | 453                   | 42 81+         | 472           |
| "    repairers.....                     | —                   | —              | 27                    | 61 07+         | 27            |
| Ticket inspectors.....                  | —                   | —              | 2                     | 50 00          | 2             |
| Tinsmiths.....                          | 31                  | 2 04+          | —                     | —              | 31            |
| Tinsmiths' helpers.....                 | 7                   | 1 34+          | —                     | —              | 7             |
| Track supervisors.....                  | —                   | —              | 8                     | 77 69          | 8             |
| Train dispatchers.....                  | —                   | —              | 64                    | 95 06+         | 64            |
| "    masters.....                       | —                   | —              | 13                    | 96 41          | 13            |
| Trucksmiths.....                        | 2                   | 2 12½          | —                     | —              | 2             |
| Unclassified employes in car shops..... | 98                  | 1 58+          | —                     | —              | 98            |
| Upholsterers.....                       | 11                  | 2 27+          | —                     | —              | 11            |
| Warehouse laborers.....                 | 227                 | 1 34+          | 5                     | 25 00          | 232           |
| "    men.....                           | 48                  | 1 42+          | 77                    | 39 51+         | 125           |
| Watchmen.....                           | 71                  | 1 30+          | 81                    | 36 56+         | 152           |
| Watchmen, bridge.....                   | 11                  | 1 05+          | 5                     | 31 20          | 16            |
| "    engine.....                        | 9                   | 1 33           | 3                     | 36 66+         | 12            |
| "    shop.....                          | 4                   | 1 50           | 4                     | 46 25          | 8             |
| Water boy.....                          | 1                   | 75             | —                     | —              | 1             |
| Weighmasters.....                       | —                   | —              | 3                     | 58 33          | 3             |
| Weighmen.....                           | —                   | —              | 6                     | 33 00          | 6             |
| Wheel pressers.....                     | 3                   | 1 66+          | —                     | —              | 3             |
| Wood machinists.....                    | 26                  | 1 60+          | —                     | —              | 26            |
| Yardmasters.....                        | 13                  | 2 23+          | 58                    | 67 80+         | 71            |
| Yardmen.....                            | 28                  | 1 62+          | 19                    | 50 15+         | 47            |

\* Boarded in addition to wages.

In making a comparison of wages paid by railway companies in Michigan with those paid by similar corporations in Europe, the same Consular Reports as in the case of agricultural wages were consulted. These reports, coming from the State Department in August of this year and containing the reports of 1884, will be conceded to be the latest authority upon the question of labor statistics in Europe.

In the study of the tables it will be noticed that the wages of engineers on Michigan railroads is given as averaging \$85 per month, while those of the United Kingdom are given as being \$45.50 per month. Were we to give the average of the *highest wages* paid in England to engineers, as taken from seven Consular reports, it would read \$53.04 per month, while the average highest wages paid same occupation in Michigan would read over \$100 per month. This item is referred to that the reader may understand the desire has been to show a fair comparison of wages as they really exist in Europe, with a minimum rather than a maximum average of wages for Michigan.

The reports of Consuls in some instances fail to give wages for each of the 29 occupations specified in Table No. 25, and the absence of figures in columns of certain countries is thus explained.

**TABLE NO. 25.—Comparison of Average Wages Paid in 29 Occupations on all Rail-  
as given by the Consular Reports, on Railroads in the United Kingdom, Germany,  
in 1884.**

| Occupations.                       | Michigan. |       | United Kingdom. |       | Germany. |       | France. |       | Switzerland. |       | Austria-Hungary. |       |
|------------------------------------|-----------|-------|-----------------|-------|----------|-------|---------|-------|--------------|-------|------------------|-------|
|                                    | Month.    | Day.  | Month.          | Day.  | Month.   | Day.  | Month.  | Day.  | Month.       | Day.  | Month.           | Day.  |
| Agents.....                        | \$47 10   | ----- | \$38 01         | ----- | \$35 27  | ----- | \$45 96 | ----- | \$31 00      | ----- | -----            | ----- |
| Brakemen.....                      | 47 64     | ----- | 29 38           | ----- | 17 03    | ----- | 21 58   | ----- | 21 25        | ----- | -----            | ----- |
| Baggagemen, }<br>Train.....        | 47 12     | ----- | -----           | ----- | 23 59    | ----- | 24 37   | ----- | 28 42        | ----- | -----            | ----- |
| Bridge tenders                     | 37 08     | ----- | -----           | ----- | 17 80    | ----- | -----   | ----- | -----        | ----- | -----            | ----- |
| Blacksmiths.....                   | \$2 17    | ----- | \$1 15          | ----- | \$0 71   | ----- | \$1 20  | ----- | -----        | ----- | \$0 94           | ----- |
| “ strikers.....                    | 1 42      | ----- | 79              | ----- | 47       | ----- | 65      | ----- | -----        | ----- | -----            | ----- |
| Coppersmiths.....                  | 2 41      | ----- | 1 31            | ----- | 55       | ----- | 1 10    | ----- | -----        | ----- | 1 00             | ----- |
| Clerks.....                        | 53 21     | ----- | 24 92           | ----- | 36 39    | ----- | 29 45   | ----- | 24 25        | ----- | -----            | ----- |
| Conductors.....                    | 74 97     | ----- | 28 95           | ----- | 23 59    | ----- | 33 33   | ----- | 28 82        | ----- | \$26 72          | ----- |
| Car cleaners.....                  | 33 63     | ----- | 17 07           | ----- | 15 98    | ----- | 16 69   | ----- | -----        | ----- | 20 00            | ----- |
| Carpenters.....                    | 2 04      | ----- | 1 21            | ----- | 73       | ----- | 1 00    | ----- | -----        | ----- | -----            | 90    |
| Engineers.....                     | 85 05     | ----- | 45 50           | ----- | 33 00    | ----- | 38 60   | ----- | 44 21        | ----- | 32 96            | ----- |
| Engine wipers.....                 | 1 22      | ----- | 76              | ----- | 59       | ----- | 84      | ----- | \$0 71       | ----- | -----            | 98    |
| Foremen.....                       | 60 00     | ----- | 53 13           | ----- | 40 67    | ----- | 57 50   | ----- | 39 66        | ----- | 27 75            | ----- |
| Flagmen.....                       | 1 17      | ----- | 97              | ----- | 53       | ----- | 97      | ----- | -----        | ----- | -----            | ----- |
| Firemen.....                       | 45 00     | ----- | 27 78           | ----- | 22 65    | ----- | 24 18   | ----- | 29 17        | ----- | 14 70            | ----- |
| Laborers, un- }<br>classified..... | 1 16      | ----- | 77              | ----- | 53       | ----- | 70      | ----- | 75           | ----- | -----            | 77    |
| Machinists.....                    | 2 07      | ----- | 1 24            | ----- | 84       | ----- | 85      | ----- | -----        | ----- | -----            | 1 09  |
| Masons.....                        | 2 40      | ----- | 1 11            | ----- | 83       | ----- | 1 00    | ----- | -----        | ----- | -----            | ----- |
| Operators, Tel.                    | 42 81     | ----- | 24 27           | ----- | 24 47    | ----- | 26 08   | ----- | 16 00        | ----- | 36 75            | ----- |
| Painters.....                      | 1 93      | ----- | 1 15            | ----- | 59       | ----- | 1 00    | ----- | -----        | ----- | -----            | 90    |
| Riveters and }<br>fitters.....     | 1 58      | ----- | -----           | ----- | 59       | ----- | 1 00    | ----- | -----        | ----- | -----            | 90    |
| Section or }<br>track men.....     | 1 14      | ----- | 95              | ----- | 53       | ----- | 66      | ----- | 58           | ----- | -----            | 70    |
| Section fore- }<br>men.....        | 1 62      | ----- | 1 22            | ----- | 60       | ----- | 81      | ----- | 72           | ----- | -----            | ----- |
| Switchmen.....                     | 57 23     | ----- | 26 17           | ----- | 17 83    | ----- | 21 54   | ----- | 17 95        | ----- | -----            | ----- |
| Trackmasters.....                  | 104 30    | ----- | -----           | ----- | 32 69    | ----- | 37 50   | ----- | -----        | ----- | -----            | ----- |
| Watchmen.....                      | 36 56     | ----- | -----           | ----- | 14 29    | ----- | 22 39   | ----- | -----        | ----- | 23 14            | ----- |
| Yardmen.....                       | 50 15     | ----- | 24 18           | ----- | -----    | ----- | -----   | ----- | -----        | ----- | -----            | ----- |
| Yardmaster.....                    | 67 80     | ----- | -----           | ----- | 50 00    | ----- | 33 21   | ----- | -----        | ----- | -----            | ----- |

‡ The railways in Belgium are operated by the Government. Employés are pensioned after certain marked with an \* also receive free lodgings and uniform. Those marked with a † also receive free

*roads in Michigan in 1885, with the Average Wages Paid in like Occupations, so far France, Switzerland, Austria-Hungary, Holland, Spain, Italy, Belgium and Russia*

| Holland. |        | Spain.  |        | Italy.  |        | Belgium. |        | Russia.  |      | Occupations.             |
|----------|--------|---------|--------|---------|--------|----------|--------|----------|------|--------------------------|
| Month.   | Day.   | Month.  | Day.   | Month.  | Day.   | Month.   | Day.   | Month.   | Day. |                          |
| \$55 00  |        | \$37 41 |        | \$32 50 |        | \$43 10  |        | \$40 00+ |      | Agents.                  |
| 18 20    |        | 15 52   |        | 13 74   |        | 21 00    |        | 11 00*   |      | Brakemen.                |
|          |        |         |        | 15 39   |        | 21 00    |        | 10 40*   |      | Baggagemen, Train.       |
|          |        |         |        |         |        |          |        | 4 80*    |      | Bridge tenders.          |
|          |        |         |        |         | \$1 08 |          |        | \$0 38   |      | Blacksmiths.             |
|          |        |         |        |         | 50     |          |        | 33       |      | " strikers.              |
|          |        |         |        |         | 97     |          |        | 56       |      | Coppersmiths.            |
| 25 00    |        | 27 50   |        | 19 68   |        | 36 97    |        | 20 00+   |      | Clerks.                  |
|          |        | 29 23   |        | 20 25   |        | 33 39    |        | 21 37*   |      | Conductors.              |
|          |        | 15 39   |        |         | 1 05   |          |        |          |      | Car cleaners.            |
|          |        |         |        |         |        |          |        | 56       |      | Carpenters.              |
| 33 51    |        | 43 95   |        | 44 33   |        | 33 48    |        | 56 00    |      | Engineers.               |
|          |        |         |        |         |        |          |        |          |      | Engine wipers.           |
|          |        | 44 00   |        |         |        |          |        | 48 00+   |      | Foremen.                 |
| 17 58    |        |         |        | 14 48   |        |          |        | 4 80*    |      | Flagmen.                 |
| 24 48    |        | 25 16   |        | 25 78   |        | 21 42    |        | 10 92*   |      | Firemen.                 |
|          |        |         | \$0 32 |         | 67     |          |        |          |      | { Laborers unclassified. |
|          |        |         | 60     |         |        |          |        |          |      | Machinists.              |
|          |        |         |        |         |        |          |        |          |      | Masons.                  |
|          |        | 23 06   |        | 23 95   |        |          |        |          |      | Operators, Tel.          |
|          |        |         |        |         |        |          |        | 56       |      | Painters.                |
|          |        |         | 60     |         |        |          |        | 56       |      | Riveters and fitters.    |
|          | \$0 54 |         | 57     |         |        |          | \$0 77 | 46+      |      | Section or track men     |
|          | 68     |         | 63     |         |        |          | 87     | 1 38+    |      | Section foremen.         |
| 18 78    |        | 14 06   |        |         |        | 21 82    |        | 5 60*    |      | Switchmen.               |
|          |        |         |        |         |        |          |        |          |      | Trackmasters.            |
|          |        | 18 00   |        | 13 50   |        | 28 95    |        | 8 15     |      | Watchmen.                |
|          |        |         |        |         |        |          |        |          |      | Yardmen.                 |
|          |        |         |        |         |        |          |        |          |      | Yardmasters.             |

seven years' service.  
lodgings.

§ The figures are from the Moscow railway. Employés receiving wages

## CHAPTER III.

**MANUFACTURING AND OTHER BUSINESS INTERESTS  
OF THE STATE.**

In this chapter it has been the desire of the Bureau to complete a work which should give as thorough a report of the number of wage-workers and their wages in the entire State as possible to give under the law governing the operations of the Bureau.

The law of 1883 constituting this Bureau provided for a gathering of statistics by supervisors of townships and supervisors or assessors of the wards of cities "at the time of assessing the property thereof," upon such blanks as would be furnished by the Bureau. These blanks were to be sent to the county clerks in the State, who should give the same to the supervisors.

It was found by the Commissioner of 1883-84, Hon. John W. McGrath, that blanks thus sent out oftentimes failed to reach the supervisor, and in very many cases were not returned by the supervisors to the county clerks, who held such blanks as did come in, waiting for the delinquents, thus preventing returns to the Bureau in such season as to enable a proper work upon them. At the suggestion of Hon. John Devlin, Deputy Commissioner under Mr. McGrath, the present Commissioner asked the Legislature of 1885 to so amend the law as to permit the sending of blanks direct to supervisors from the Bureau, with requests to return the same properly filled. The law was so amended.

In March of 1885 circulars and blank forms were sent to the several county clerks, with return addressed and stamped envelopes, asking that immediately after the April election of supervisors and assessors the postoffice address of each should be furnished this Bureau. These addresses were not promptly sent in, and in several instances the county clerks were addressed more than once, asking for the same. Replies were frequent that "we cannot get the address of the supervisor."

So soon as addresses were received, blanks of the following style were mailed, with return addressed and stamped envelopes, to each supervisor or assessor, excepting in the counties of Isle Royal and Manitou, and the city of Detroit:

[Form 2—s 85.]

*To the Commissioner of Labor, Lansing, Michigan:**Return of Manufacturing Industries in the.....of.....County, Michigan,.....1885.*

| Class of Industry. | Name of Proprietors. | Stock Co. or Individual. | Employés. |          |              |         |                | Has this Industry been Closed during the Year 1884? How Long? Cause. | Sanitary Condition. | Remarks. |
|--------------------|----------------------|--------------------------|-----------|----------|--------------|---------|----------------|--|---------------------|----------|
|                    |                      |                          | Number.   |          | Daily Wages. |         | Hours Per Day. |  |                     |          |
|                    |                      |                          | Males.    | Females. | Highest.     | Lowest. |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |
|                    |                      |                          |           |          |              |         |                |  |                     |          |

The above is as correct a canvass as possible for me to make.

....., Supervisor.

[Form 3—s 85.]

*To the Commissioner of Labor, Lansing, Michigan:**Return of all Classes of Business (other than Manufacturing or Agricultural) in the.....of.....County, Mich.,.....1885.*

| Class of Business | Name of Proprietors. | Employés. |         |                  |         |              |           |           |          |                 |              |               |            | Hours Per Day. | Remarks. |
|-------------------|----------------------|-----------|---------|------------------|---------|--------------|-----------|-----------|----------|-----------------|--------------|---------------|------------|----------------|----------|
|                   |                      | Number.   |         | Civil Condition. |         | Age.         |           | Nativity. |          | Wages per Week. |              |               |            |                |          |
|                   |                      | Male.     | Female. | Married.         | Single. | 16 and Over. | Under 16. | Native.   | Foreign. | \$1 to \$4.     | \$4 to \$12. | \$12 to \$18. | Over \$18. |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |
|                   |                      |           |         |                  |         |              |           |           |          |                 |              |               |            |                |          |

The above is as correct a canvass as possible for me to make.

....., Supervisor.

These blanks were sent to 1,351 supervisors, covering as many towns and wards in 78 counties.

Answers were received from 893 supervisors, leaving 458 towns and wards to be reached in some other manner. Of the towns and cities reported by supervisors, Kalamazoo was notably well canvassed, while many reports showed, that while the work was well done, so far as done, the canvass had not been complete. Many supervisors asked us the question, "who pays for our work?" Others said, "we don't do work we are not paid for;" others were inclined to attach to the Bureau a design to impose upon them without a warrant of law, notwithstanding the fact that in a circular to them we expressed the wording of



the law, while others, never heard from, must have the blanks and stamped envelopes still in their possession. As said at the outset, it was our desire to make this work as complete as possible; we therefore appealed to a number of postmasters in small towns to fill out blanks, and returns were received from 45 of these officials. The Gazetteer of the State was closely studied, and it was found that 164 townships *had no* manufacturing or other business interests within their borders. Thus was the number of townships and wards unheard from reduced to 249. Included in this number were the largest cities in our State as well as a few small villages.

It became necessary to place canvassers at work. The amount of appropriations allowed the Bureau compelled the greatest economy in prosecuting the work, and the compensation paid was in no sense extravagant, amounting in the aggregate to \$936. There were appointed 43 canvassers whose work covered 172 towns and wards. These canvassers were chosen because of recommended ability; they were of the various political parties, and, in most instances, veterans of the late war, to whom preference was given. The work of these special canvassers was laid out upon blanks of an entirely different character from those furnished supervisors, as will be seen by the tables giving their reports in this chapter. The number receiving specific wages, owning homes, having savings laid by, was called for. The canvassers were instructed to inform all parties that the information asked for would not be given to the public in such a manner as to prejudice their business, and to urge upon all a compliance with the request of the Bureau. It is a pleasure to state that in nearly all towns canvassers met with a pleasant reception from business men and manufacturers; there were cases where three or four merchants refused to give wages of employes in as many towns. In the city of Detroit, however, the disposition to refuse to give our canvassers any information was quite extended. Deputy Commissioner F. B. Egan was given the work in Detroit as a special charge, with two assistants, Representative Hugh McClelland and Mr. Thomas McColl. These three gentlemen were well qualified for the work, and prosecuted it through the months of August and September with great energy. Finding the disposition to refuse answers to be quite extensive on the part of merchants, the Commissioner visited Detroit and made known the objects of the canvass to the editors of the Daily Free Press, Post, News and Journal, who kindly explained to their readers the Commissioner's work, its necessity and confidential character. From this time Mr. Egan and his assistants found less opposition, and yet of such an extent as to affect the canvass in a manner that is unfavorable to Detroit. The canvass resulted in giving 1,197 reports of business and manufacturing interests where wages and other answers were given, 155 reports where number of employes only were given and all other questions refused an answer. There were a few large manufacturing establishments that were not running at time of canvass, and at least four employing over 200 men each that refused to give any answers whatever; this is also true

of a few mercantile houses. In all cases where refusals were met with, Mr. Egan or his assistants made more than one call upon the parties.

The various means stated for procuring a canvass of the State as a whole enables us to give information from 1,274 townships and wards, leaving 77 townships unheard from. The towns unheard from are located in 43 counties, and are nearly all of such a size as to warrant the belief that no wages are paid for labor by mercantile or manufacturing industries.

From this work of special canvassers we present in the tables of this chapter a showing of

|   |        |
|---|--------|
| Males employed in business interests.....                     | 22,057 |
| Females employed in business interests.....                   | 4,295  |
| Males over 16 years of age in manufacturing interests.....    | 35,565 |
| Females over 16 years of age in manufacturing interests.....  | 3,780  |
| Males under 16 years of age in manufacturing interests.....   | 1,996  |
| Females under 16 years of age in manufacturing interests..... | 319    |
| Total males reported in canvass.....                          | 59,618 |
| Total females reported in canvass.....                        | 8,394  |
| Total both sexes.....   | 68,012 |

In the tables showing the report of supervisors we have also incorporated the work done by canvassers. This has been done that the questions asked in supervisors' blanks might show as far as possible a State answer. The reports from supervisors alone would have shown as employed:

|  |        |
|--|--------|
| Males in business interests.....         | 6,998  |
| Females in business interests.....       | 1,605  |
| Males in manufacturing industries.....   | 36,379 |
| Females in manufacturing industries..... | 1,533  |

Making a total of the canvass of the State, by supervisors, postmasters, and special canvassers as shown in this chapter, of

|              |         |
|--------------|---------|
| Males.....   | 102,995 |
| Females..... | 11,532  |
| Total.....   | 114,527 |

To which should be added 18,518 railroad employés, making a total canvass of 133,045 wage-earners.

The work has been condensed in the tables that follow, as much as it is possible to permit and give a clear idea of the showings of each. A careful study of the tables will enable one to fairly understand conditions in each county of our State so far as it is possible to secure without the means of special canvassers.

In examining these tables, the reader must at all times remember that what is shown is what has been reported to the Bureau, and, as in the case of business interests, if there be reported one barber shop and one employé in a given town, the inference is not that there is but one barber shop in the town, but that there is but one shop having an employé working for wages.

It has been the intention to avoid a canvass of government, state, or municipal employés; there does appear, however, in the report one or two fire depart-

ments, which should have been omitted. There are also a few postoffice clerks given; they are from offices of small size.

It is to be borne in mind that the canvass of the State was made before the law known as "the ten-hour law" went into effect, and the hours for day's work as given have reference to the time previous to the 19th of September.

The following table, No. 26, is given as being of interest, in the showing of the number of towns and wards in each county in the State having or not having manufacturing or business interests within their limits:

TABLE NO. 26.—*Showing the number of Towns and Wards in each County having or not having Manufacturing or other Business industries that pay wages for help as reported to the Bureau.*

| Counties.            | Manufacturing. |     | Other Business. |     | Counties.          | Manufacturing. |     | Other Business. |     |
|----------------------|----------------|-----|-----------------|-----|--------------------|----------------|-----|-----------------|-----|
|                      | Yes.           | No. | Yes.            | No. |                    | Yes.           | No. | Yes.            | No. |
| Alcona .....         | 2              | 1   | 2               | 1   | Lapeer .....       | 10             | 11  | 10              | 11  |
| Allegan .....        | 7              | 15  | 10              | 12  | Leelanaw .....     | 7              | 3   | 4               | 6   |
| Alpena .....         | 6              | 3   | 4               | 5   | Lenawee .....      | 14             | 10  | 13              | 11  |
| Antrim .....         | 8              | 7   | 7               | 8   | Livingston .....   | 6              | 9   | 6               | 9   |
| Arenac .....         | 4              | 4   | 3               | 5   | Mackinac .....     | 4              | 7   | 4               | 7   |
| Baraga .....         | 2              | —   | 1               | 1   | Macomb .....       | 10             | 6   | 9               | 7   |
| Barry .....          | 10             | 9   | 10              | 9   | Manistee .....     | 10             | 6   | 7               | 9   |
| Bay .....            | 15             | 8   | 14              | 9   | Marquette .....    | 11             | 3   | 8               | 6   |
| Benzie .....         | 5              | 6   | 3               | 8   | Mason .....        | 8              | 9   | 7               | 10  |
| Berrien .....        | 17             | 7   | 13              | 11  | Mecosta .....      | 12             | 7   | 11              | 8   |
| Branch .....         | 8              | 12  | 9               | 11  | Menominee .....    | 12             | 1   | 10              | 3   |
| Calhoun .....        | 20             | 13  | 19              | 14  | Midland .....      | 7              | 7   | 5               | 9   |
| Cass .....           | 6              | 10  | 6               | 10  | Missaukee .....    | 3              | 9   | 2               | 10  |
| Charlevoix .....     | 2              | 12  | 3               | 11  | Monroe .....       | 10             | 8   | 7               | 11  |
| Cheboygan .....      | 3              | 9   | —               | 12  | Montcalm .....     | 13             | 7   | 7               | 13  |
| Chippewa .....       | 5              | 3   | 4               | 4   | Montmorency .....  | 2              | 2   | 1               | 3   |
| Clare .....          | 2              | 7   | 3               | 6   | Muskegon .....     | 16             | 8   | 13              | 11  |
| Clinton .....        | 8              | 8   | 7               | 9   | Newaygo .....      | 13             | 8   | 10              | 11  |
| Crawford .....       | 1              | 7   | —               | 8   | Oakland .....      | 14             | 13  | 16              | 11  |
| Delta .....          | 9              | 7   | 7               | 9   | Oceana .....       | 8              | 8   | 6               | 10  |
| Eaton .....          | 9              | 7   | 6               | 10  | Ogemaw .....       | 6              | 3   | 4               | 9   |
| Emmet .....          | 9              | 7   | 2               | 10  | Ontonagon .....    | 2              | 3   | 2               | 3   |
| Genesee .....        | 16             | 6   | 12              | 10  | Osceola .....      | 9              | 5   | 7               | 7   |
| Gladwin .....        | 1              | 3   | —               | 4   | Osceola .....      | 3              | 6   | —               | 9   |
| Grand Traverse ..... | 2              | 11  | 2               | 11  | Otsego .....       | 3              | 4   | 2               | 5   |
| Gratiot .....        | 7              | 9   | 6               | 10  | Ottawa .....       | 11             | 12  | 14              | 9   |
| Hillsdale .....      | 12             | 10  | 12              | 10  | Presque Isle ..... | 2              | 7   | 2               | 7   |
| Houghton .....       | 7              | —   | 6               | 1   | Roscommon .....    | 1              | 4   | —               | 5   |
| Huron .....          | 12             | 15  | 7               | 20  | Saginaw .....      | 31             | 9   | 24              | 16  |
| Ingham .....         | 16             | 7   | 11              | 12  | Sanilac .....      | 8              | 17  | 8               | 17  |
| Ionia .....          | 10             | 7   | 8               | 9   | Schoolcraft .....  | 5              | 1   | 4               | 2   |
| Iosco .....          | 2              | 6   | 1               | 7   | Shiawassee .....   | 12             | 10  | 11              | 11  |
| Isabella .....       | 9              | 7   | 5               | 11  | St. Clair .....    | 17             | 11  | 13              | 15  |
| Jackson .....        | 11             | 12  | 11              | 12  | St. Joseph .....   | 9              | 7   | 8               | 8   |
| Kalamazoo .....      | 12             | 9   | 12              | 9   | Tuscola .....      | 12             | 8   | 8               | 12  |
| Kalkaska .....       | 3              | 9   | 1               | 11  | Van Buren .....    | 10             | 7   | 9               | 8   |
| Kent .....           | 18             | 11  | 15              | 14  | Washtenaw .....    | 11             | 19  | 10              | 20  |
| Keweenaw .....       | 5              | 1   | 5               | 1   | Wayne .....        | 19             | 15  | 18              | 16  |
| Lake .....           | 10             | 2   | 4               | 8   | Wexford .....      | 11             | 7   | 6               | 12  |
| Total .....          | 679            | 578 | 557             | 700 |                    |                |     |                 |     |

The following table, No. 27, shows the work of special canvassers relating to manufacturing industries in the cities, towns, and villages of—

|                      |               |                 |              |                |
|----------------------|---------------|-----------------|--------------|----------------|
| Adrian,              | Corunna,      | Harbor Springs, | Midland,     | St. Louis,     |
| Albion,              | Detroit,      | Hillsdale,      | Monroe,      | Tawas City,    |
| Alpena,              | Dowagiac,     | Holland,        | Montague,    | Traverse City, |
| Ann Arbor,           | East Saginaw, | Houghton,       | Muskegon,    | Trenton,       |
| Au Sable and Oscoda, | East Tawas,   | Howell,         | Niles,       | West Bay City, |
| Bay City,            | Escanaba,     | Jackson,        | Pt. Huron,   | Whitehall,     |
| Big Rapids,          | Franklin,     | Lakeside,       | Reed City,   | White Pigeon,  |
| Blissfield,          | Grand Haven,  | Lansing,        | Saginaw,     | Wyandotte,     |
| Bronson,             | Grand Rapids, | Lowell,         | Schoolcraft, | Ypsilanti,     |
| Buchanan,            | Hancock,      | Mason,          | St. Joseph,  | Zilwaukee.     |
| Coldwater,           | Hanover,      |                 |              |                |

TABLE NO. 27.—*Showing class of industry; Number of industries in each class; Sani-  
employés; Number over 16 years of age; Number 16 years of age and under; Nativ-  
living with parents; Number paid weekly, semi-monthly, monthly and irregularly;  
part store orders; as reported by Special Canvassers relating to Manufacturing*

| Class of Industry.                            | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.                                  | Number of Employes.       |                           |                                       | Nativity.                 |                         |
|---|-----------------------|---------------------|-------|-------|----------------|----------|---------------------------------------|---------------------------|---------------------------|---------------------------------------|---------------------------|-------------------------|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                                       | Total Num-<br>ber.        | Over 16 years<br>of age.  | Sixteen years<br>of age and<br>under. | Native.                   | Foreign.                |
| Totals .....                                  | 1186                  | 1050                | 51    | 10    |                |          | { Totals...<br>Females...<br>Males... | 41,660<br>4,099<br>37,561 | 39,345<br>3,780<br>35,565 | 2,315<br>319<br>1,996                 | 17,034<br>2,529<br>14,505 | 18,854<br>737<br>18,127 |
| <b>ADRIAN:</b>                                |                       |                     |       |       |                |          |                                       |                           |                           |                                       |                           |                         |
| Blank books.....                              | 1                     | 1                   |       |       | 10             |          | { Females...<br>Males...              | 1<br>2                    | 1<br>2                    |                                       | 1<br>2                    |                         |
| Boxes.....                                    | 1                     | 1                   |       |       | 10             |          | { Females...<br>Males...              | 3<br>1                    | 3<br>1                    |                                       | 2<br>1                    | 1                       |
| Brass goods.....                              | 1                     | 1                   |       |       | 10             |          | Males...                              | 1                         | 1                         |                                       | 1                         |                         |
| Breweries.....                                | 2                     | 2                   |       |       | 13             |          | Males...                              | 10                        | 10                        |                                       | 2                         | 8                       |
| Brick and tile.....                           | 3                     | 3                   |       |       | 10             |          | Males...                              | 65                        | 63                        | 2                                     | 49                        | 16                      |
| Building stone and<br>monuments.....          | 2                     | 2                   |       |       | 10             |          | Males...                              | 38                        | 38                        |                                       | 33                        | 5                       |
| Canned goods.....                             | 1                     | 1                   |       |       | 10             |          | { Females...<br>Males...              | 74<br>76                  | 69<br>51                  | 5<br>25                               | 34<br>41                  | 40<br>35                |
| Car shops.....                                | 1                     | 1                   |       |       | 10             |          | Males...                              | 168                       | 168                       |                                       | 47                        | 121                     |
| Carriages, wagons and<br>sleighs.....         | 3                     | 3                   |       |       | 10             |          | Males...                              | 13                        | 13                        |                                       | 12                        | 1                       |
| Cigars.....                                   | 4                     | 4                   |       |       | 10             |          | Males...                              | 14                        | 14                        |                                       | 12                        | 2                       |
| Cooperage.....                                | 1                     | 1                   |       |       | 9              |          | Males...                              | 7                         | 7                         |                                       | 5                         | 2                       |
| Flour and feed.....                           | 3                     | 3                   |       |       | 10             | 30       | { Females...<br>Males...              | 1<br>23                   | 1<br>23                   |                                       | 1<br>13                   | 10                      |
| Founderies and ma-<br>chine shops.....        | 1                     | 1                   |       |       | 10             |          | Males...                              | 8                         | 8                         |                                       | 8                         |                         |
| Furniture.....                                | 2                     | 2                   |       |       | 10             |          | Males...                              | 34                        | 29                        | 5                                     | 29                        | 5                       |
| Machinery.....                                | 2                     | 2                   |       |       | 10             |          | Males...                              | 50                        | 50                        |                                       | 38                        | 12                      |
| Planing mills, sash,<br>doors and blinds..... | 2                     | 1                   |       |       | 10             |          | { Females...<br>Males...              | 6<br>29                   | 6<br>28                   |                                       | 6<br>23                   | 6                       |
| Pumps.....                                    | 1                     | 1                   |       |       | 10             |          | Males...                              | 5                         | 5                         |                                       | 5                         |                         |
| Stove boards.....                             | 1                     | 1                   |       |       | 10             |          | Males...                              | 10                        | 10                        |                                       | 10                        |                         |
| Straw goods.....                              | 1                     | 1                   |       |       | 10             |          | { Females...<br>Males...              | 100<br>25                 | 100<br>25                 |                                       | 80<br>20                  | 20<br>5                 |
| Wheelbarrows.....                             | 1                     | 1                   |       |       | 10             |          | Males...                              | 35                        | 34                        | 1                                     | 28                        | 7                       |
| Telegraph pins and<br>brackets.....           | 1                     | 1                   |       |       | 10             |          | Males...                              | 9                         | 9                         |                                       | 9                         |                         |
| Total, city.....                              | 35                    | 32                  | 2     |       | 10             | 30       | { Females...<br>Males...              | 185<br>623                | 180<br>589                | 5<br>34                               | 124<br>386                | 61<br>237               |
| <b>ALBION:</b>                                |                       |                     |       |       |                |          |                                       |                           |                           |                                       |                           |                         |
| Agricultural imple-<br>ments.....             | 2                     | 1                   |       |       | 9              | 17       | Males...                              | 103                       | 103                       |                                       | 73                        | 30                      |
| Cigars.....                                   | 2                     | 2                   |       |       | 10             |          | Males...                              | 4                         | 4                         |                                       | 4                         |                         |
| Flour and feed.....                           | 2                     | 2                   |       |       | 10             |          | Males...                              | 35                        | 35                        |                                       | 2                         |                         |
| Planing mills, sash,<br>doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males...                              | 35                        | 35                        |                                       |                           |                         |
| Tanneries.....                                | 1                     |                     |       | 1     | 10             |          | Males...                              | 6                         | 6                         |                                       | 2                         | 4                       |
| Windmills.....                                | 1                     | 1                   |       |       | 10             |          | Males...                              | 20                        | 20                        |                                       | 18                        | 2                       |
| Total, city.....                              | 9                     | 7                   |       | 1     | 9              | 38       | { Females...<br>Males...              | 203<br>203                | 203<br>203                |                                       | 99                        | 36                      |
| <b>ALPENA:</b>                                |                       |                     |       |       |                |          |                                       |                           |                           |                                       |                           |                         |
| Cigars.....                                   | 2                     | 2                   |       |       | 10             |          | Males...                              | 5                         | 5                         |                                       |                           | 5                       |
| Founderies and machine<br>shops.....          | 2                     | 2                   |       |       | 10             |          | Males...                              | 17                        | 17                        |                                       | 7                         | 10                      |
| Lime.....                                     | 1                     | 1                   |       |       |                |          | Males...                              | 12                        | 10                        | 2                                     | 3                         | 9                       |
| Lumber, shingles and<br>lath.....             | 13                    | 11                  |       |       | 11             |          | Males...                              | 675                       | 650                       | 25                                    | 146                       | 523                     |

*tary condition; Number of hours' work per day; Sex of employes; Total number of  
ity; Civil condition; Number owning or renting houses; Number boarding; Number  
Number having savings in bank; Number of apprentices; Number paid all cash or  
Industries in 52 Cities, Villages and Towns named on the preceding page.*

| Civil Condition.        |                           | Number of Employees  |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
|-------------------------|---------------------------|----------------------|-----------------------|-----------------------|-------------------------|---------------------------|-------------------------|-------------------------|------------------------|----------------------------|------------------|---------------------------|-------------------------------|
| Married.                | Single.                   | Owning<br>Homes.     | Renting<br>Homes.     | Boarding.             | Living with<br>Parents. | Paid Weekly.              | Paid Semi-<br>monthly.  | Paid<br>Monthly.        | Paid Irregu-<br>larly. | Having mon-<br>ey in Bank. | Apprentices.     | Paid all Cash.            | Paid part in<br>Store Orders. |
| 18,969<br>407<br>18,562 | 17,823<br>3,341<br>14,482 | 8,183<br>24<br>8,159 | 9,374<br>221<br>9,153 | 9,339<br>462<br>8,877 | 7,719<br>2,206<br>5,513 | 15,316<br>3,043<br>12,273 | 15,263<br>756<br>14,507 | 11,649<br>288<br>11,361 | 109<br>109             | 2,568<br>57<br>2,511       | 675<br>26<br>649 | 40,423<br>4,063<br>36,390 | 610<br>45<br>565              |
| 2                       | 1                         |                      | 2                     |                       | 1                       | 1                         |                         |                         |                        | 2                          |                  | 1                         |                               |
|                         | 3                         |                      |                       |                       | 3                       | 3                         |                         |                         |                        |                            |                  | 3                         |                               |
|                         | 1                         |                      |                       |                       | 1                       | 1                         |                         |                         |                        |                            |                  | 1                         |                               |
|                         | 1                         |                      |                       | 1                     |                         | 1                         |                         |                         |                        | 1                          |                  | 1                         |                               |
| 8                       | 2                         | 4                    | 4                     |                       |                         |                           |                         | 5                       | 5                      |                            | 3                | 10                        |                               |
| 31                      | 34                        | 11                   | 12                    | 31                    | 11                      | 65                        |                         |                         |                        |                            |                  | 65                        |                               |
| 28                      | 10                        | 1                    | 23                    | 12                    | 2                       | 33                        |                         | 8                       |                        | 8                          | 10               | 38                        |                               |
| 54                      | 20                        | 2                    | 16                    | 31                    | 25                      | 74                        |                         |                         |                        |                            |                  | 74                        |                               |
| 35                      | 16                        | 20                   | 15                    | 16                    | 25                      | 76                        |                         |                         |                        | 18                         |                  | 76                        |                               |
| 150                     | 18                        | 48                   | 60                    | 35                    | 25                      |                           |                         | 168                     |                        | 20                         | 4                | 168                       |                               |
| 6                       | 7                         | 2                    | 4                     | 5                     | 2                       | 13                        |                         |                         |                        | 1                          |                  | 13                        |                               |
| 2                       | 12                        |                      | 2                     | 6                     | 6                       | 14                        |                         |                         |                        |                            |                  | 14                        |                               |
| 4                       | 3                         | 1                    | 3                     |                       | 3                       | 7                         |                         |                         |                        |                            |                  | 7                         |                               |
|                         | 1                         |                      |                       |                       | 1                       | 1                         |                         |                         |                        |                            |                  | 1                         |                               |
| 15                      | 8                         | 3                    | 12                    | 4                     | 4                       | 23                        |                         |                         |                        | 5                          |                  | 23                        |                               |
| 4                       | 4                         | 2                    | 2                     | 2                     | 2                       | 8                         |                         |                         |                        |                            |                  | 8                         |                               |
| 19                      | 15                        | 14                   | 6                     | 5                     | 9                       | 4                         |                         | 30                      |                        | 11                         | 5                | 34                        |                               |
| 42                      | 8                         | 33                   | 10                    |                       | 7                       | 50                        |                         |                         |                        | 6                          |                  | 50                        |                               |
| 3                       | 3                         |                      | 3                     |                       | 3                       | 6                         |                         |                         |                        |                            |                  | 6                         |                               |
| 18                      | 11                        | 5                    | 14                    | 5                     | 5                       | 29                        |                         |                         |                        | 6                          |                  | 29                        |                               |
|                         | 5                         |                      |                       | 5                     |                         | 5                         |                         |                         |                        |                            |                  | 5                         |                               |
| 5                       | 5                         | 1                    | 4                     | 5                     |                         |                           | 10                      |                         |                        | 3                          |                  | 10                        |                               |
| 5                       | 95                        |                      | 5                     | 32                    | 63                      |                           |                         | 100                     |                        | 45                         |                  | 100                       |                               |
| 14                      | 11                        | 10                   | 7                     | 8                     |                         |                           |                         | 25                      |                        | 22                         |                  | 25                        |                               |
| 19                      | 16                        | 2                    | 17                    |                       | 16                      | 35                        |                         |                         |                        |                            |                  | 35                        |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 5                       | 4                         |                      | 6                     |                       | 3                       | 9                         |                         |                         |                        | 1                          |                  | 9                         |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 62                      | 123                       | 2                    | 24                    | 63                    | 96                      | 85                        |                         | 100                     |                        | 45                         |                  | 185                       |                               |
| 407                     | 191                       | 157                  | 203                   | 142                   | 121                     | 372                       | 10                      | 236                     | 5                      | 109                        | 22               | 623                       |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 88                      | 15                        | 61                   | 25                    | 14                    | 3                       | 103                       |                         |                         |                        |                            |                  | 103                       |                               |
| 1                       | 3                         |                      | 1                     | 2                     | 1                       | 4                         |                         |                         |                        |                            |                  | 4                         |                               |
| 2                       |                           | 1                    | 1                     |                       |                         | 35                        |                         |                         |                        | 1                          |                  | 35                        |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 30                      | 5                         |                      |                       |                       |                         | 35                        |                         |                         |                        |                            |                  | 35                        |                               |
| 6                       |                           |                      |                       |                       |                         | 6                         |                         |                         |                        |                            |                  | 6                         |                               |
| 18                      | 2                         | 5                    | 13                    |                       | 2                       | 20                        |                         |                         |                        |                            |                  | 20                        |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 145                     | 25                        | 67                   | 40                    | 16                    | 6                       | 203                       |                         |                         |                        | 1                          |                  | 203                       |                               |
|                         |                           |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 2                       | 3                         | 1                    | 1                     | 3                     |                         | 5                         |                         |                         |                        |                            |                  | 5                         |                               |
| 13                      | 4                         | 4                    | 9                     | 4                     |                         | 17                        |                         |                         |                        |                            |                  | 17                        |                               |
| 7                       | 5                         |                      |                       |                       |                         |                           |                         |                         |                        |                            |                  |                           |                               |
| 450                     | 219                       | 228                  | 218                   | 186                   | 39                      |                           | 586                     | 89                      |                        | 6                          |                  | 496                       | 179                           |

TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.                  | Number of Employees. |                       |                                 | Nativity. |          |
|--|-----------------------|---------------------|-------|-------|----------------|----------|-----------------------|----------------------|-----------------------|---------------------------------|-----------|----------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                       | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| <b>ALPENA—Continued:</b>                   |                       |                     |       |       |                |          |                       |                      |                       |                                 |           |          |
| Planing mills, sash, doors and blinds..... | 2                     | 1                   |       |       | 10             |          | Males...              | 26                   | 26                    |                                 | 12        | 14       |
| Total, city.....                           | 20                    | 17                  |       |       | 10             | 57       | { Females<br>Males... | 735                  | 708                   | 27                              | 168       | 561      |
| <b>ANN ARBOR:</b>                          |                       |                     |       |       |                |          |                       |                      |                       |                                 |           |          |
| Breweries.....                             | 2                     | 2                   |       |       | 10             |          | Males...              | 9                    | 9                     |                                 | 2         | 7        |
| Brick and tile.....                        | 1                     | 1                   |       |       | 10             |          | Males...              | 8                    | 8                     |                                 |           |          |
| Carriages, wagons and sleighs.....         | 5                     | 4                   |       |       | 10             |          | Males...              | 35                   | 35                    |                                 | 17        | 2        |
| Cooperage.....                             | 1                     | 1                   |       |       |                |          | Males...              | 3                    | 3                     |                                 | 3         |          |
| Flour and feed.....                        | 3                     | 3                   |       |       | 10             | 36       | { Females<br>Males... | 1<br>48              | 1<br>48               |                                 | 1<br>40   | 1<br>8   |
| Founderies and machine shops.....          | 1                     | 1                   |       |       | 10             |          | Males...              | 4                    | 4                     |                                 | 2         | 2        |
| Furniture.....                             | 3                     | 3                   |       |       | 10             |          | Males...              | 55                   | 40                    | 15                              | 24        | 20       |
| Musical instruments.....                   | 1                     | 1                   |       |       |                |          | Males...              | 9                    | 9                     |                                 | 6         | 3        |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Males...              | 13                   | 13                    |                                 | 4         | 1        |
| Tanneries.....                             | 1                     | 1                   |       |       | 10             |          | Males...              | 8                    | 8                     |                                 | 3         | 5        |
| Total, city.....                           | 20                    | 19                  |       |       | 10             | 10       | { Females<br>Males... | 1<br>192             | 1<br>177              | 15                              | 1<br>101  | 1<br>48  |
| <b>AU SABLE AND OSCODA:</b>                |                       |                     |       |       |                |          |                       |                      |                       |                                 |           |          |
| Cigars.....                                | 1                     | 1                   |       |       | 10             |          | Males...              | 3                    | 3                     |                                 | 1         | 2        |
| Founderies and machine shops.....          | 1                     | 1                   |       |       | 10             |          | Males...              | 4                    | 4                     |                                 | 2         | 2        |
| Lumber, shingles and salt.....             | 8                     | 8                   |       |       | 10             | 57       | Males...              | 903                  | 851                   | 52                              | 391       | 384      |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males...              | 4                    | 4                     |                                 | 2         | 2        |
| Total, towns.....                          | 11                    | 11                  |       |       | 10             | 26       | { Females<br>Males... | 914                  | 862                   | 52                              | 396       | 390      |
| <b>BAY CITY:</b>                           |                       |                     |       |       |                |          |                       |                      |                       |                                 |           |          |
| Boilers.....                               | 1                     | 1                   |       |       | 10             |          | Males...              | 10                   | 9                     | 1                               | 7         | 3        |
| Breweries.....                             | 1                     | 1                   |       |       | 11             |          | Males...              | 13                   | 13                    |                                 | 13        | 13       |
| Boxes.....                                 | 2                     | 2                   |       |       | 10             |          | Males...              | 27                   | 22                    | 5                               | 15        | 12       |
| Building stone and monuments.....          | 1                     | 1                   |       |       |                |          | Males...              | 7                    | 7                     |                                 | 5         | 2        |
| Carriages, wagons and sleighs.....         | 3                     | 3                   |       |       | 10             |          | Males...              | 22                   | 22                    |                                 | 15        | 7        |
| Cooperage.....                             | 2                     | 2                   |       |       | 10             |          | Males...              | 45                   | 36                    | 9                               | 24        | 19       |
| Flour and feed.....                        | 2                     | 2                   |       |       | 10             |          | Males...              | 25                   | 25                    |                                 | 16        | 9        |
| Founderies and machine shops.....          | 1                     | 1                   |       |       |                |          | Males...              | 21                   | 21                    |                                 | 13        | 8        |
| Fire kindling.....                         | 1                     | 1                   |       |       | 10             |          | Males...              | 14                   | 5                     | 9                               | 14        |          |
| Lime.....                                  | 1                     | 1                   |       |       |                |          | Males...              | 4                    | 4                     |                                 | 2         | 2        |
| Lumber, shingles and salt.....             | 25                    | 23                  | 2     |       | 10             | 6        | Males...              | 1,967                | 1,832                 | 135                             | 629       | 1,258    |
| Machinery.....                             | 4                     | 4                   |       |       | 10             |          | Males...              | 160                  | 156                   | 4                               | 121       | 39       |
| Planing mills, sash, doors and blinds..... | 5                     | 5                   |       |       | 10             |          | Males...              | 61                   | 50                    | 11                              | 32        | 29       |
| Staves and heading.....                    | 1                     |                     |       |       | 10             |          | Males...              | 8                    | 4                     |                                 | 4         | 4        |
| Upholstering.....                          | 2                     | 2                   |       |       | 10             |          | { Females<br>Males... | 2<br>7               | 2<br>5                |                                 | 2<br>3    | 4        |
| Wood water pipe.....                       | 1                     | 1                   |       |       | 10             |          | Males...              | 40                   | 37                    | 3                               | 15        | 25       |
| Total, city.....                           | 53                    | 51                  | 2     |       | 10             | 6        | { Females<br>Males... | 2<br>2,431           | 2<br>2,248            | 183                             | 2<br>915  | 1,434    |

TABLE NO. 27.—Continued.

| Civil Condition. |            | Number of Employees |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|------------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single.    | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 20               | 6          | 15                  | 5              | 6         |                      | 26           |                    |               |                   |                       |              | 26             |                            |
| 492              | 237        | 248                 | 233            | 199       | 39                   | 48           | 586                | 89            |                   | 6                     |              | 544            | 179                        |
| 7                | 2          | 1<br>3              | 5<br>4         | 2         | 1                    | 9<br>8       |                    |               |                   | 3                     |              | 9<br>8         |                            |
| 11               | 8          | 15                  | 4              | 3         | 11                   | 35           |                    |               |                   | 7                     | 2            | 35             |                            |
| 1                | 2          | 1                   |                | 2         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 23               | 25         | 8                   | 13             | 17        | 10                   | 30           | 18                 |               |                   | 27                    |              | 48             |                            |
| 1                | 3          |                     | 1              | 1         | 2                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 22               | 22         | 11                  | 14             | 9         | 20                   | 6            |                    | 49            |                   | 7                     |              | 55             |                            |
| 4                | 5          |                     | 4              | 1         | 4                    | 9            |                    |               |                   | 2                     |              | 9              |                            |
| 3                | 2          | 3                   | 3              | 4         | 3                    | 13           |                    |               |                   | 1                     |              | 13             |                            |
| 5                | 3          | 4                   | 4              |           |                      | 8            |                    |               |                   | 2                     |              | 8              |                            |
| 77               | 1<br>72    | 46                  | 52             | 39        | 51                   | 1<br>125     | 18                 | 49            |                   | 49                    | 2            | 1<br>192       |                            |
|                  | 3          |                     | 1              | 2         |                      | 3            |                    |               |                   | 1                     |              | 3              |                            |
| 2                | 2          | 1                   | 1              | 2         |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 222              | 168        | 248                 | 284            | 278       | 94                   | 238          | 272                | 393           |                   | 111                   |              | 903            |                            |
|                  |            | 1                   | 1              | 1         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 224              | 173        | 250                 | 287            | 283       | 95                   | 249          | 272                | 393           |                   | 112                   |              | 914            |                            |
| 2                | 8          | 2                   |                | 8         |                      | 10           |                    |               |                   | 5                     |              | 10             |                            |
| 7                | 6          | 3                   | 4              | 6         |                      |              |                    | 13            |                   |                       |              |                |                            |
| 12               | 15         | 3                   | 9              | 8         | 7                    | 9            | 18                 |               |                   | 3                     |              | 27             |                            |
| 2                | 5          |                     |                |           |                      |              |                    |               |                   |                       | 3            |                |                            |
| 8                | 14         | 1                   | 7              | 12        | 2                    | 22           |                    |               |                   | 4                     |              | 22             |                            |
| 14               | 29         | 2                   | 12             | 20        | 9                    |              |                    | 45            |                   |                       |              | 45             |                            |
| 18               | 7          | 5                   | 8              | 8         | 4                    | 25           |                    |               |                   |                       |              | 25             |                            |
| 13               | 8          | 2                   | 11             | 7         | 1                    | 21           |                    |               |                   | 6                     |              | 21             |                            |
| 2                | 12         |                     | 2              |           | 12                   |              | 14                 |               |                   |                       |              | 14             |                            |
| 4                |            | 1                   | 3              |           |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 1,164            | 802        | 462                 | 640            | 556       | 229                  | 32           | 1,421              | 514           |                   | 265                   |              | 1,967          |                            |
| 90               | 70         | 26                  | 65             | 36        | 29                   |              | 52                 | 108           |                   | 18                    |              | 160            |                            |
| 33               | 28         | 14                  | 19             | 13        | 15                   | 12           | 49                 |               |                   | 1                     |              | 61             |                            |
|                  | 8          |                     |                | 4         | 4                    |              |                    | 8             |                   | 1                     |              | 8              |                            |
|                  | 2          |                     |                |           |                      | 2            |                    |               |                   | 1                     |              | 2              |                            |
| 5                | 2          | 1                   | 4              |           | 2                    | 7            |                    |               |                   |                       |              | 7              |                            |
| 20               | 20         | 10                  | 10             | 14        | 6                    |              | 40                 |               |                   | 9                     | 3            | 40             |                            |
| 1,394            | 2<br>1,034 | 532                 | 794            | 692       | 320                  | 2<br>142     | 1,594              | 688           |                   | 312                   | 6            | 2,411          |                            |



TABLE NO. 37.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.           | Number of Employees. |                       |                                 | Nativity. |          |
|--|-----------------------|---------------------|-------|-------|----------------|----------|----------------|----------------------|-----------------------|---------------------------------|-----------|----------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| <b>BIG RAPIDS:</b>                         |                       |                     |       |       |                |          |                |                      |                       |                                 |           |          |
| Breweries.....                             | 1                     | 1                   |       |       | 10             |          | Males .....    | 4                    | 4                     |                                 |           | 4        |
| Carriages, wagons and sleighs.....         | 1                     | 1                   |       |       | 9              |          | Males .....    | 23                   | 23                    |                                 | 16        | 7        |
| Cigars.....                                | 1                     |                     | 1     |       | 10             |          | { Females..... | 1                    | 1                     |                                 | 1         |          |
| Flour and feed.....                        | 1                     | 1                   |       |       | 10             |          | Males .....    | 7                    | 5                     | 2                               | 3         | 4        |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 10             |          | Males .....    | 7                    | 7                     |                                 | 2         | 5        |
| Furniture.....                             | 1                     | 1                   |       |       | 10             |          | Males .....    | 12                   | 12                    |                                 | 8         | 4        |
| Lumber, lath and shingles.....             | 1                     | 1                   |       |       | 10             |          | Males .....    | 14                   | 14                    |                                 |           |          |
| Machinery.....                             | 2                     | 1                   |       |       | 10             | 12       | Males .....    | 127                  | 112                   | 15                              | 114       | 13       |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males .....    | 15                   | 15                    |                                 | 10        | 5        |
| Staves and heading.....                    | 4                     | 4                   |       |       | 10             |          | Males .....    | 143                  | 133                   | 10                              | 96        | 46       |
| Tanneries.....                             | 1                     | 1                   |       |       | 11             |          | Males .....    | 25                   | 24                    | 1                               | 3         | 22       |
| Woodenware.....                            | 1                     | 1                   |       |       | 10             |          | Males .....    | 2                    | 2                     |                                 |           | 2        |
|  | 1                     | 1                   |       |       | 10             |          | Males .....    | 55                   | 55                    |                                 | 25        | 30       |
| Total, city.....                           | 16                    | 14                  | 1     |       | 10             | 3        | { Females..... | 1                    | 1                     |                                 | 1         |          |
|  |                       |                     |       |       |                |          | { Males .....  | 434                  | 406                   | 28                              | 277       | 142      |
| <b>BLISSFIELD:</b>                         |                       |                     |       |       |                |          |                |                      |                       |                                 |           |          |
| Broom handles.....                         | 1                     | 1                   |       |       | 10             |          | Males .....    | 5                    | 5                     |                                 | 5         |          |
| Building stone and monuments.....          | 1                     | 1                   |       |       |                |          | Males .....    | 2                    | 2                     |                                 | 1         | 1        |
| Cigars.....                                | 1                     | 1                   |       |       | 8              |          | Males .....    | 2                    | 2                     |                                 | 2         |          |
| Flour and feed.....                        | 2                     | 2                   |       |       | 10             |          | Males .....    | 4                    | 4                     |                                 | 4         |          |
| Total, town.....                           | 5                     | 5                   |       |       | 9              | 38       | { Females..... |                      |                       |                                 |           |          |
|  |                       |                     |       |       |                |          | { Males .....  | 13                   | 13                    |                                 | 12        | 1        |
| <b>BRONSON:</b>                            |                       |                     |       |       |                |          |                |                      |                       |                                 |           |          |
| Carriages, wagons and sleighs.....         | 2                     | 2                   |       |       | 10             |          | Males .....    | 6                    | 6                     |                                 | 5         | 1        |
| Flour and feed.....                        | 1                     | 1                   |       |       | 12             |          | Males .....    | 2                    | 2                     |                                 | 2         |          |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 10             |          | Males .....    | 1                    | 1                     |                                 | 1         |          |
| Harnesses.....                             | 1                     |                     | 1     |       | 10             |          | Males .....    | 1                    | 1                     |                                 | 1         |          |
| Lumber and shingles.....                   | 1                     |                     | 1     |       | 10             |          | Males .....    | 2                    | 2                     |                                 | 2         |          |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males .....    | 3                    | 3                     |                                 | 3         |          |
| Total, town.....                           | 7                     | 5                   | 2     |       | 10             | 16       | { Females..... |                      |                       |                                 |           |          |
|  |                       |                     |       |       |                |          | { Males .....  | 15                   | 15                    |                                 | 14        | 1        |
| <b>BUCHANAN:</b>                           |                       |                     |       |       |                |          |                |                      |                       |                                 |           |          |
| Carriages, wagons and sleighs.....         | 1                     | 1                   |       |       | 10             |          | Males .....    | 18                   | 18                    |                                 | 18        |          |
| Flour and feed.....                        | 1                     | 1                   |       |       | 10             |          | Males .....    | 5                    | 5                     |                                 | 4         | 1        |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 10             |          | Males .....    | 3                    | 3                     |                                 | 3         |          |
| Furniture.....                             | 5                     | 4                   |       |       | 10             |          | Males .....    | 115                  | 115                   |                                 | 111       | 4        |
| Saddlery hardware.....                     | 1                     | 1                   |       |       | 10             |          | Males .....    | 5                    | 5                     |                                 | 2         | 3        |
| Windmills.....                             | 1                     |                     |       |       | 10             |          | Males .....    | 12                   | 12                    |                                 | 12        |          |
| Total, town.....                           | 10                    | 8                   |       |       | 10             |          | { Females..... |                      |                       |                                 |           |          |
|  |                       |                     |       |       |                |          | { Males .....  | 158                  | 158                   |                                 | 150       | 8        |

# WAGES AND WAGE-EARNERS.

225

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employees |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 1                | 3       |                     | 2              | 2         |                      | 4            |                    |               |                   | 4                     |              | 4              |                            |
| 9                | 14      | 8                   | 1              | 13        |                      |              |                    | 23            |                   |                       |              | 23             |                            |
| 1                | 1       |                     |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 6                | 1       | 3                   | 3              | 1         |                      | 7            |                    |               |                   | 1                     |              | 7              |                            |
| 8                | 4       | 6                   | 1              | 5         |                      | 12           |                    |               |                   |                       |              | 12             |                            |
|                  |         | 5                   | 2              | 4         | 3                    | 14           |                    |               |                   |                       |              | 14             |                            |
| 115              | 12      | 8                   | 12             | 5         | 2                    |              |                    | 127           |                   |                       |              | 127            |                            |
| 15               |         | 13                  | 2              |           |                      |              | 15                 |               |                   |                       |              | 15             |                            |
| 77               | 66      | 37                  | 39             | 23        | 44                   | 56           | 47                 | 40            |                   | 14                    | 2            | 143            |                            |
| 6                | 19      | 3                   | 2              | 1         | 11                   | 25           |                    |               |                   |                       |              | 25             |                            |
| 2                |         | 1                   | 1              |           |                      | 2            |                    |               |                   | 1                     |              | 2              |                            |
| 20               | 35      |                     |                |           |                      |              | 55                 |               |                   |                       |              | 55             |                            |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 260              | 158     | 85                  | 69             | 54        | 62                   | 127          | 117                | 190           |                   | 20                    | 2            | 434            |                            |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 3                | 2       | 1                   | 4              |           |                      | 5            |                    |               |                   |                       |              |                |                            |
| 1                | 1       |                     |                | 2         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 1                | 1       | 1                   |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                | 1       |                     | 3              |           | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 8                | 5       | 2                   | 7              | 3         | 1                    | 13           |                    |               |                   |                       |              | 8              |                            |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 2                | 4       | 2                   |                | 3         | 1                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 1                | 1       | 1                   |                |           | 1                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 1                |         |                     |                |           |                      |              | 1                  |               |                   |                       |              | 1              |                            |
| 2                | 1       |                     | 2              |           | 1                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                |         | 2                   | 1              |           |                      | 3            |                    |               |                   |                       |              |                | 3                          |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 9                | 6       | 6                   | 3              | 3         | 3                    | 15           |                    |               |                   |                       |              | 12             | 3                          |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 11               | 7       | 5                   | 6              | 7         |                      |              | 18                 |               |                   |                       |              | 18             |                            |
| 2                | 3       | 2                   |                | 3         |                      | 5            |                    |               |                   | 1                     |              | 5              |                            |
| 3                |         | 1                   |                | 2         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 60               | 55      | 24                  | 36             | 55        |                      | 86           |                    | 29            |                   |                       |              | 115            |                            |
| 2                | 3       | 2                   |                | 3         |                      | 5            |                    |               |                   | 4                     |              | 5              |                            |
| 11               | 1       | 4                   | 7              | 1         |                      |              | 12                 |               |                   | 1                     |              | 12             |                            |
|                  |         |                     |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 89               | 69      | 38                  | 49             | 71        |                      | 99           | 30                 | 29            |                   | 6                     |              | 158            |                            |

TABLE No. 27.—Continued.

| Class of Industry.                          | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.       | Number of Employés. |                       |                                 | Nativity. |          |
|---|-----------------------|---------------------|-------|-------|----------------|----------|------------|---------------------|-----------------------|---------------------------------|-----------|----------|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |            | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| COLDWATER:                                  |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |
| Boxes .....                                 | 1                     | 1                   |       |       | 10             |          | { Females. | 6                   | 6                     |                                 | 6         |          |
| Breweries .....                             | 1                     | 1                   |       |       | 11             |          | { Males    | 10                  | 10                    |                                 | 10        |          |
| Carriages, wagons and sleighs .....         | 2                     | 2                   |       |       | 10             |          | { Males    | 3                   | 3                     |                                 | 3         |          |
| Cigars .....                                | 6                     | 4                   | 2     |       | 9              | 50       | { Females. | 61                  | 59                    | 2                               | 58        | 3        |
| Cooperage .....                             | 3                     | 2                   | 1     |       | 10             |          | { Males    | 65                  | 61                    | 4                               | 63        | 2        |
| Flour and feed .....                        | 2                     | 2                   |       |       | 11             | 41       | { Males    | 88                  | 78                    | 10                              | 79        | 9        |
| Foundries and machine shops .....           | 3                     | 2                   | 1     |       | 10             |          | { Males    | 47                  | 47                    |                                 | 42        | 5        |
| Furniture .....                             | 2                     | 2                   |       |       | 11             |          | { Males    | 13                  | 13                    |                                 | 10        | 3        |
| Ladders .....                               | 2                     | 1                   | 1     |       | 10             |          | { Males    | 8                   | 8                     |                                 | 6         | 2        |
| Sporting goods .....                        | 2                     | 2                   |       |       | 10             |          | { Males    | 30                  | 30                    |                                 | 20        | 10       |
| Tanneries .....                             | 1                     | 1                   |       |       | 10             |          | { Males    | 1                   | 1                     |                                 | 1         |          |
| Wheel-barrows .....                         | 1                     | 1                   |       |       | 9              |          | { Males    | 2                   | 2                     |                                 | 2         |          |
|   | 1                     |                     | 1     |       | 9              |          | { Males    | 5                   | 5                     |                                 | 4         | 1        |
|   | 1                     | 1                   |       |       |                |          | { Males    | 12                  | 12                    |                                 | 12        |          |
| Total, city .....                           | 23                    | 18                  | 5     |       | 10             | 2        | { Females. | 71                  | 67                    | 4                               | 69        | 2        |
|   |                       |                     |       |       |                |          | { Males    | 280                 | 268                   | 12                              | 247       | 33       |
| CORUNNA:                                    |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |
| Carriages, wagons and sleighs .....         | 1                     |                     | 1     |       | 10             |          | { Males    | 4                   | 4                     |                                 | 4         |          |
| Planing mills, sash, doors and blinds ..... | 1                     |                     |       | 1     | 10             |          | { Males    | 4                   | 4                     |                                 | 2         | 2        |
| Woolens .....                               | 1                     | 1                   |       |       | 10             |          | { Females. | 1                   | 1                     |                                 |           | 1        |
|   |                       |                     |       |       |                |          | { Males    | 3                   | 3                     |                                 | 3         |          |
| Total, city .....                           | 3                     | 1                   | 1     | 1     | 10             |          | { Females. | 1                   | 1                     |                                 |           | 1        |
|   |                       |                     |       |       |                |          | { Males    | 11                  | 11                    |                                 | 9         | 2        |
| DETROIT:                                    |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |
| Agricultural Implements .....               | 1                     | 1                   |       |       | 10             |          | { Males    | 25                  | 25                    |                                 | 9         | 16       |
| Anvils and vises .....                      | 1                     | 1                   |       |       | 10             |          | { Males    | 6                   | 6                     |                                 | 6         |          |
| Artificial limbs .....                      | 2                     | 2                   |       |       | 10             |          | { Males    | 7                   | 7                     |                                 | 2         |          |
| Awnings and tents .....                     | 2                     | 1                   |       | 1     | 10             |          | { Females. | 3                   | 3                     |                                 |           |          |
| Bed springs .....                           | 1                     |                     |       |       | 10             |          | { Males    | 6                   | 6                     |                                 | 2         |          |
| Beer pumps .....                            | 1                     | 2                   |       |       | 10             |          | { Males    | 10                  | 7                     | 3                               | 4         | 6        |
| Belting .....                               | 2                     | 2                   |       |       | 8              |          | { Males    | 4                   | 3                     | 1                               | 3         | 1        |
| Billiard tables .....                       | 1                     | 1                   |       |       | 10             |          | { Males    | 33                  | 33                    |                                 |           |          |
| Blank books .....                           | 1                     | 1                   |       |       | 10             |          | { Males    | 10                  | 10                    |                                 | 1         | 9        |
| Blast furnaces .....                        | 3                     | 2                   |       |       | 10             |          | { Females. | 35                  | 35                    |                                 | 8         | 2        |
| Boilers .....                               | 2                     | 2                   |       |       | 10             |          | { Males    | 43                  | 41                    | 2                               | 35        | 4        |
| Boots and shoes .....                       | 3                     | 3                   |       |       | 10             |          | { Males    | 53                  | 53                    |                                 | 12        | 41       |
|   | 8                     | 7                   |       |       | 10             | 14       | { Males    | 87                  | 86                    | 1                               | 21        | 27       |
|   |                       |                     |       |       |                |          | { Females. | 30                  | 30                    |                                 | 5         |          |
| Boxes .....                                 | 5                     | 5                   |       |       | 10             |          | { Males    | 100                 | 99                    | 1                               | 10        | 39       |
| Breweries .....                             | 13                    | 13                  |       |       | 10             | 33       | { Females. | 73                  | 55                    | 18                              | 53        | 20       |
| Brewery machinery .....                     | 1                     | 1                   |       |       | 10             |          | { Males    | 93                  | 92                    | 1                               | 40        | 53       |
| Brick and tile .....                        | 19                    | 1                   |       |       | 10             | 32       | { Males    | 176                 | 175                   | 1                               | 14        | 141      |
|   |                       |                     |       |       |                |          | { Females. | 14                  | 14                    |                                 | 6         | 8        |
| Bronze goods .....                          | 1                     | 1                   |       |       | 10             |          | { Females. | 75                  | 72                    | 3                               | 1         | 60       |
| Brooms and brushes .....                    | 6                     | 5                   | 1     |       | 9              | 53       | { Females. | 534                 | 485                   | 49                              | 58        | 348      |
|   |                       |                     |       |       |                |          | { Females. | 1                   | 1                     |                                 |           |          |
| Confectionaries .....                       | 4                     | 4                   |       |       | 10             |          | { Males    | 40                  | 40                    |                                 | 32        | 8        |
| Canned goods .....                          | 1                     | 1                   |       |       | 10             |          | { Females. | 9                   | 9                     |                                 | 8         | 1        |
|   |                       |                     |       |       |                |          | { Males    | 64                  | 48                    | 16                              | 43        | 21       |
| Carbon, glue, etc. ....                     | 1                     |                     |       |       | 10             |          | { Females. | 78                  | 73                    | 5                               | 68        | 10       |
|   |                       |                     |       |       |                |          | { Males    | 75                  | 72                    | 3                               | 48        | 27       |
|   |                       |                     |       |       |                |          | { Females. | 5                   | 5                     |                                 | 5         |          |
|   |                       |                     |       |       |                |          | { Males    | 11                  | 6                     | 5                               | 10        | 1        |
|   |                       |                     |       |       |                |          | { Males    | 150                 | 150                   |                                 | 25        | 125      |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 3                | 6       | 2                  | 3              | 1         | 6                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 1                | 7       |                    |                | 3         | 4                    | 10           |                    |               |                   |                       |              | 10             |                            |
|                  | 2       |                    |                |           |                      |              |                    | 3             |                   |                       |              | 3              |                            |
| 47               | 14      | 22                 | 14             | 19        | 6                    | 61           |                    |               |                   |                       |              | 61             |                            |
| 26               | 39      |                    | 19             | 12        | 34                   | 65           |                    |               |                   |                       |              | 60             | 5                          |
| 38               | 50      | 24                 | 15             | 16        | 33                   | 88           |                    |               |                   | 5                     |              | 72             | 16                         |
| 31               | 16      | 17                 | 14             | 4         | 12                   | 47           |                    |               |                   |                       |              | 29             | 18                         |
| 8                | 3       | 3                  | 8              |           | 2                    | 13           |                    |               |                   |                       |              | 13             |                            |
| 7                | 1       | 2                  | 4              | 1         | 1                    | 8            |                    |               |                   |                       | 2            | 8              |                            |
| 23               | 7       | 4                  | 17             | 6         | 3                    | 30           |                    |               |                   |                       |              | 30             |                            |
|                  | 1       |                    |                | 1         |                      |              |                    | 1             |                   |                       |              | 1              |                            |
| 1                | 1       | 1                  |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 4                | 1       | 2                  | 2              | 2         | 1                    | 5            |                    |               |                   | 1                     |              | 5              |                            |
|                  |         | 5                  | 4              | 2         | 1                    | 12           |                    |               |                   |                       |              | 12             |                            |
| 26               | 45      |                    | 19             | 12        | 40                   | 71           |                    |               |                   |                       |              | 66             | 5                          |
| 163              | 103     | 82                 | 81             | 54        | 63                   | 276          |                    | 4             |                   | 6                     | 2            | 246            | 34                         |
| 3                | 1       | 1                  | 1              | 1         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 1                | 3       |                    | 1              |           | 3                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 2                | 1       |                    | 2              | 1         | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  |         |                    |                |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 6                | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 5       | 1                  | 4              | 2         | 4                    | 11           |                    |               |                   |                       |              | 11             |                            |
| 13               | 12      | 6                  | 7              | 4         | 8                    | 25           |                    |               |                   |                       |              | 25             |                            |
| 3                | 3       |                    | 3              |           | 3                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 4                | 3       |                    | 4              | 1         | 2                    | 7            |                    |               |                   |                       | 1            | 7              |                            |
|                  |         |                    |                |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 2                | 2       |                    | 2              | 2         | 6                    | 4            |                    |               |                   |                       |              | 6              |                            |
| 2                | 2       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 4              |                            |
| 22               | 11      | 1                  | 1              |           |                      | 33           |                    | 2             |                   |                       |              | 33             |                            |
| 8                |         |                    |                |           | 1                    | 10           |                    |               |                   |                       |              | 10             |                            |
|                  | 1       | 4                  | 4              |           | 34                   | 35           |                    |               |                   |                       |              | 35             |                            |
| 15               | 28      | 2                  | 13             | 7         | 21                   | 43           |                    |               |                   |                       |              | 43             |                            |
| 39               | 14      | 6                  | 2              | 5         |                      |              |                    |               |                   |                       |              | 53             |                            |
| 32               | 16      | 8                  | 24             | 3         | 12                   | 74           |                    |               |                   |                       |              | 87             |                            |
|                  | 5       |                    |                |           | 5                    | 30           | 13                 |               |                   |                       |              | 30             |                            |
| 40               | 9       | 24                 | 14             | 5         | 7                    | 100          |                    |               |                   |                       |              | 100            |                            |
|                  |         |                    |                |           | 69                   | 25           |                    |               |                   | 16                    | 1            | 73             |                            |
| 45               | 73      |                    | 2              | 1         |                      | 28           | 48                 |               |                   |                       | 2            | 93             |                            |
| 83               | 48      | 29                 | 24             | 5         | 35                   | 28           | 65                 |               |                   |                       |              | 176            |                            |
| 6                | 8       | 24                 | 57             | 36        | 12                   | 80           | 56                 | 40            |                   | 5                     | 1            | 14             |                            |
| 47               | 18      | 5                  | 1              | 4         | 4                    | 14           |                    |               |                   | 14                    | 4            | 75             |                            |
| 323              | 185     | 56                 | 232            | 58        | 94                   |              | 48                 | 27            |                   |                       |              | 534            |                            |
|                  |         |                    |                |           | 1                    |              | 383                | 151           |                   | 1                     |              | 1              |                            |
| 22               | 18      | 3                  | 19             | 13        | 1                    |              |                    |               |                   |                       |              | 40             |                            |
|                  | 9       |                    |                |           | 8                    | 9            | 40                 |               |                   | 14                    |              | 9              |                            |
| 12               | 52      | 3                  | 9              | 15        | 37                   | 64           |                    |               |                   |                       | 2            | 64             |                            |
| 4                | 69      |                    | 1              | 3         | 72                   | 78           |                    |               |                   | 4                     |              | 78             |                            |
| 22               | 53      | 7                  | 17             | 19        | 32                   | 75           |                    |               |                   | 7                     |              | 75             |                            |
|                  | 5       |                    |                |           |                      | 5            |                    |               |                   |                       |              | 5              |                            |
| 4                | 7       |                    | 4              | 2         | 5                    | 11           |                    |               |                   |                       |              | 11             |                            |
| 100              | 50      |                    |                |           |                      |              |                    | 150           |                   |                       |              | 150            |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.     | Number of Employés. |                       |                                 | Nativity. |          |
|--|-----------------------|---------------------|-------|-------|----------------|----------|----------|---------------------|-----------------------|---------------------------------|-----------|----------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |          | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| DETROIT—Continued :                        |                       |                     |       |       |                |          |          |                     |                       |                                 |           |          |
| Car siding and roofing.                    | 1                     | 1                   |       |       | 10             |          | Females. | 1                   | 1                     |                                 |           |          |
| Car wheels.                                | 2                     | 2                   |       |       | 10             |          | Males.   | 49                  | 44                    | 5                               |           |          |
| Caskets, coffins and undertaker's supplies | 3                     | 2                   | 1     |       | 9              | 52       | Females. | 230                 | 230                   |                                 | 77        | 153      |
| Carriages, wagons and sleighs.             | 15                    | 14                  |       |       | 10             |          | Males.   | 5                   | 5                     |                                 | 5         |          |
| Cigars and tobacco.                        | 37                    | 34                  | 2     |       | 9              | 23       | Males.   | 44                  | 44                    |                                 | 28        | 16       |
| Clothes-wringers.                          | 2                     | 2                   |       |       | 10             |          | Males.   | 158                 | 152                   | 6                               | 73        | 59       |
| Clothing.                                  | 5                     | 3                   |       |       | 10             |          | Females. | 536                 | 472                   | 64                              | 77        | 109      |
| Corsets, bustles and skirts                | 1                     | 1                   |       |       | 10             |          | Males.   | 605                 | 572                   | 33                              | 138       | 289      |
| Cooperage.                                 | 8                     | 8                   |       |       | 9              | 56       | Males.   | 16                  | 16                    |                                 | 11        | 5        |
| Crackers.                                  | 4                     | 3                   |       |       | 10             | 5        | Females. | 113                 | 109                   | 4                               | 38        | 31       |
| Door-knobs.                                | 2                     | 2                   |       |       | 10             |          | Males.   | 60                  | 60                    |                                 | 18        | 42       |
| Edged tools.                               | 2                     | 2                   |       |       | 10             |          | Females. | 150                 | 150                   |                                 | 75        | 75       |
| Elbows.                                    | 1                     | 1                   |       |       | 10             |          | Males.   | 12                  | 12                    |                                 | 12        |          |
| Electrical apparatus.                      | 2                     | 2                   |       |       | 10             |          | Females. | 5                   | 5                     |                                 |           |          |
| Emery-wheel.                               | 1                     |                     |       |       | 10             |          | Males.   | 167                 | 164                   | 3                               | 49        | 78       |
| Engines.                                   | 2                     | 2                   |       |       | 9              | 20       | Females. | 14                  | 14                    |                                 | 2         | 12       |
| Exhaust fans & blowers                     | 2                     | 2                   |       |       | 10             |          | Males.   | 103                 | 98                    | 5                               | 55        | 46       |
| Extracts and perfumes.                     | 1                     | 1                   |       |       | 10             |          | Females. | 5                   | 5                     |                                 | 4         | 1        |
| Felt goods.                                | 1                     | 1                   |       |       | 10             |          | Males.   | 23                  | 23                    |                                 | 17        | 6        |
| Flour and feed.                            | 9                     | 9                   |       |       | 10             | 40       | Females. | 1                   | 1                     |                                 | 1         |          |
| Flower pots.                               | 1                     | 1                   |       |       | 10             |          | Males.   | 18                  | 18                    |                                 | 8         | 10       |
| Foundries and machine shops                | 9                     | 9                   |       |       | 9              | 45       | Females. | 5                   | 2                     | 5                               | 5         |          |
| Fur goods.                                 | 1                     | 1                   |       |       | 10             |          | Males.   | 84                  | 74                    | 10                              | 63        | 21       |
| Furniture and upholstery.                  | 14                    | 14                  |       |       | 10             |          | Females. | 1                   | 1                     |                                 | 1         |          |
| Galvanized pipe.                           | 1                     |                     | 1     |       | 10             |          | Males.   | 39                  | 39                    |                                 | 19        | 20       |
| Gas fixtures.                              | 1                     | 1                   |       |       | 10             |          | Males.   | 121                 | 119                   | 2                               | 9         | 37       |
| Gelatine goods.                            | 1                     | 1                   |       |       | 9              |          | Females. | 40                  | 40                    |                                 | 33        | 7        |
| Hair goods.                                | 2                     | 2                   |       |       | 9              |          | Males.   | 8                   | 8                     |                                 | 6         | 2        |
| Hardware.                                  | 2                     | 2                   |       |       | 10             |          | Females. | 17                  | 17                    |                                 | 16        | 1        |
| Harnesses.                                 | 6                     | 5                   |       | 1     | 10             |          | Males.   | 13                  | 13                    |                                 | 13        |          |
| Heaters.                                   | 2                     | 2                   |       |       | 10             |          | Females. | 21                  | 19                    | 2                               | 18        | 3        |
| Jewelry.                                   | 5                     | 5                   |       |       | 9              | 58       | Males.   | 93                  | 93                    |                                 | 21        | 42       |
| Knit goods.                                | 2                     | 2                   |       |       | 10             |          | Males.   | 3                   | 3                     |                                 | 1         | 2        |
| Ladders.                                   | 1                     | 1                   |       |       | 10             |          | Females. | 162                 | 161                   | 1                               | 53        | 69       |
| Lead pipe and sheet lead.                  | 1                     | 1                   |       |       | 10             |          | Males.   | 71                  | 71                    |                                 | 21        | 50       |
| Leather dressing.                          | 1                     | 1                   |       |       | 10             |          | Females. | 37                  | 36                    | 1                               | 26        | 10       |
| Lime.                                      | 1                     | 1                   |       |       | 10             |          | Males.   | 66                  | 66                    |                                 | 5         | 10       |
| Linseed oil.                               | 1                     | 1                   |       |       | 10             |          | Females. | 488                 | 439                   | 49                              | 95        | 150      |
| Locks.                                     | 2                     | 1                   |       | 1     | 10             |          | Males.   | 13                  | 13                    |                                 | 3         | 10       |
| Locomotives and car shops.                 | 2                     | 1                   |       |       | 10             |          | Females. | 29                  | 26                    | 3                               | 12        | 17       |
| Lubricating oils.                          | 2                     | 2                   |       |       | 10             |          | Males.   | 90                  | 90                    |                                 | 85        | 5        |
| Lumber and shingles.                       | 4                     | 4                   |       |       | 10             | 18       | Females. | 3                   | 3                     |                                 | 1         | 2        |
| Machinery.                                 | 8                     | 7                   | 1     |       | 10             |          | Males.   | 34                  | 34                    |                                 | 34        |          |
| Maltsters.                                 | 6                     | 6                   |       |       | 10             | 16       | Females. | 1                   |                       | 1                               | 1         |          |
| Manufactured chemicals, etc.               | 4                     | 4                   |       |       | 10             |          | Males.   | 43                  | 30                    | 13                              | 3         |          |
|  |                       |                     |       |       |                |          | Females. | 198                 | 186                   | 12                              | 3         |          |
|  |                       |                     |       |       |                |          | Males.   | 6                   | 6                     |                                 | 3         |          |
|  |                       |                     |       |       |                |          | Females. | 45                  | 42                    | 3                               | 4         | 9        |
|  |                       |                     |       |       |                |          | Males.   | 52                  | 52                    |                                 | 42        | 10       |
|  |                       |                     |       |       |                |          | Females. | 41                  | 41                    |                                 | 29        | 12       |
|  |                       |                     |       |       |                |          | Males.   | 335                 | 285                   | 50                              | 310       | 25       |
|  |                       |                     |       |       |                |          | Females. | 13                  | 11                    | 2                               | 8         | 5        |
|  |                       |                     |       |       |                |          | Males.   | 6                   | 6                     |                                 | 3         | 3        |
|  |                       |                     |       |       |                |          | Females. | 8                   | 8                     |                                 | 2         | 6        |
|  |                       |                     |       |       |                |          | Males.   | 7                   | 7                     |                                 | 7         |          |
|  |                       |                     |       |       |                |          | Females. | 28                  | 28                    |                                 | 8         | 20       |
|  |                       |                     |       |       |                |          | Males.   | 11                  | 11                    |                                 | 2         | 9        |
|  |                       |                     |       |       |                |          | Females. | 7                   | 5                     | 2                               | 3         | 3        |
|  |                       |                     |       |       |                |          | Males.   | 8                   | 8                     |                                 | 4         | 4        |
|  |                       |                     |       |       |                |          | Females. | 52                  | 52                    | 3                               | 162       | 228      |
|  |                       |                     |       |       |                |          | Males.   | 4                   | 4                     |                                 | 3         | 1        |
|  |                       |                     |       |       |                |          | Females. | 13                  | 13                    |                                 | 6         | 7        |
|  |                       |                     |       |       |                |          | Males.   | 338                 | 335                   | 3                               | 33        | 205      |
|  |                       |                     |       |       |                |          | Females. | 117                 | 116                   | 1                               | 30        | 34       |
|  |                       |                     |       |       |                |          | Males.   | 1                   | 1                     |                                 |           |          |
|  |                       |                     |       |       |                |          | Females. | 61                  | 61                    |                                 | 15        | 46       |
|  |                       |                     |       |       |                |          | Males.   | 303                 | 263                   | 40                              | 166       |          |
|  |                       |                     |       |       |                |          | Females. | 308                 | 280                   | 28                              | 194       | 21       |

# WAGES AND WAGE-EARNERS.

229

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 179              | 51      |                    |                |           |                      |              | 105                | 1             |                   |                       | 3            | 1              |                            |
|                  | 5       |                    |                |           | 2                    | 5            |                    | 49            |                   |                       |              | 230            |                            |
| 28               | 16      | 16                 | 12             | 12        | 4                    | 24           |                    | 125           |                   |                       |              | 5              |                            |
| 79               | 79      |                    |                |           | 41                   | 147          |                    | 20            |                   |                       |              | 44             |                            |
| 32               | 388     | 40                 | 40             | 37        | 16                   | 528          | 6                  |               |                   | 9                     | 7            | 153            |                            |
| 235              | 239     | 64                 | 155            | 84        | 102                  | 597          | 8                  |               |                   |                       |              | 536            |                            |
| 9                | 7       | 6                  | 3              | 4         | 3                    | 16           | 6                  |               |                   | 19                    | 10           | 603            |                            |
| 1                | 68      |                    |                | 15        | 82                   | 113          |                    |               |                   |                       |              | 16             |                            |
| 7                | 53      | 4                  | 17             | 18        | 17                   | 60           |                    |               |                   | 6                     |              | 113            |                            |
|                  | 150     |                    |                |           |                      | 150          |                    |               |                   | 24                    |              | 60             |                            |
| 6                | 6       |                    | 6              | 6         |                      | 12           |                    |               |                   |                       |              | 150            |                            |
| 1                | 4       |                    | 1              |           | 4                    |              | 5                  |               |                   |                       |              | 12             |                            |
| 94               | 73      | 23                 | 55             | 48        | 21                   | 147          | 20                 |               |                   | 6                     |              | 5              |                            |
| 2                | 12      |                    |                |           | 2                    | 14           |                    |               |                   |                       |              | 167            |                            |
| 57               | 46      | 16                 | 41             | 29        | 17                   | 103          |                    |               |                   | 1                     | 3            | 14             |                            |
|                  | 5       |                    |                |           | 5                    | 5            |                    |               |                   |                       |              | 103            |                            |
| 1                | 22      |                    | 1              | 5         | 17                   | 23           |                    |               |                   |                       |              | 5              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 23             |                            |
| 11               | 7       | 8                  | 3              | 3         | 4                    | 18           |                    |               |                   |                       |              | 1              |                            |
|                  | 5       |                    |                |           | 5                    | 5            |                    |               |                   |                       |              | 18             |                            |
| 2                |         |                    |                |           |                      |              |                    |               |                   |                       |              | 5              |                            |
| 31               | 53      | 5                  | 26             | 17        | 36                   | 4            |                    | 2             |                   |                       |              | 2              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    | 80            |                   | 40                    | 4            | 84             |                            |
| 37               | 2       | 28                 | 9              | 1         | 1                    | 39           |                    |               |                   |                       |              | 1              |                            |
| 29               | 17      | 8                  | 21             | 13        | 4                    |              | 121                |               |                   |                       | 7            | 39             |                            |
| 27               | 13      | 6                  | 21             | 10        | 3                    | 40           |                    |               |                   |                       |              | 121            |                            |
|                  | 8       |                    |                |           | 8                    | 8            |                    |               |                   |                       |              | 40             |                            |
| 5                | 12      | 1                  | 4              | 7         | 5                    | 4            |                    | 13            |                   |                       |              | 8              |                            |
| 1                | 12      |                    |                |           | 13                   | 13           |                    |               |                   |                       |              | 17             |                            |
| 7                | 14      | 1                  | 6              | 4         | 10                   | 21           |                    |               |                   |                       |              | 13             |                            |
| 65               | 28      | 18                 | 43             | 17        | 9                    | 87           |                    |               |                   |                       |              | 21             |                            |
| 2                | 1       |                    | 2              | 1         | 1                    | 3            |                    |               |                   |                       |              | 87             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              | 3              |                            |
| 82               | 40      | 35                 | 51             | 18        | 22                   | 101          | 46                 | 15            |                   |                       | 7            | 159            |                            |
| 10               | 61      |                    |                |           |                      |              | 71                 |               |                   |                       |              | 71             |                            |
| 18               | 18      |                    |                |           |                      | 37           |                    |               |                   |                       |              | 37             |                            |
|                  | 15      |                    |                | 5         | 12                   | 66           |                    |               |                   |                       |              | 66             |                            |
| 93               | 151     | 47                 | 63             | 80        | 86                   | 361          | 127                |               |                   | 2                     | 61           | 488            |                            |
| 9                | 4       |                    | 9              |           | 4                    |              | 13                 |               |                   | 1                     |              | 13             |                            |
| 8                | 18      | 3                  | 5              | 13        | 5                    | 29           |                    |               |                   |                       | 3            | 29             |                            |
| 8                | 82      |                    |                | 15        | 75                   |              |                    | 90            |                   |                       |              | 90             |                            |
| 2                | 1       |                    | 2              | 1         |                      |              |                    | 3             |                   |                       |              | 3              |                            |
| 1                | 33      |                    | 1              | 5         | 28                   | 34           |                    |               |                   |                       |              | 34             |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 3       |                    |                |           | 3                    | 3            |                    |               |                   |                       |              | 43             |                            |
| 1                | 2       |                    | 1              |           | 2                    | 3            | 40                 |               |                   |                       |              | 1              |                            |
|                  | 6       |                    |                |           | 3                    | 3            | 195                |               |                   |                       | 4            | 198            |                            |
| 24               | 21      |                    | 14             | 4         | 2                    | 41           |                    | 3             |                   |                       |              | 6              |                            |
| 18               | 34      | 6                  | 12             | 14        | 20                   | 2            |                    | 4             |                   |                       | 6            | 45             |                            |
| 14               | 27      | 3                  | 10             | 23        | 4                    | 41           |                    |               |                   | 2                     | 2            | 2              |                            |
|                  | 335     |                    | 19             | 311       | 335                  | 13           |                    |               |                   |                       | 20           | 335            |                            |
| 7                | 6       | 3                  | 4              | 6         |                      | 6            |                    |               |                   |                       |              | 13             |                            |
| 2                | 4       |                    | 2              | 2         | 2                    |              |                    |               |                   | 1                     |              | 6              |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 6                | 2       | 4                  | 2              | 1         | 1                    | 8            |                    |               |                   |                       |              | 8              |                            |
| 1                | 6       |                    | 1              |           | 6                    | 7            |                    |               |                   |                       |              | 7              |                            |
| 27               | 1       | 8                  | 19             |           | 1                    | 28           |                    |               |                   |                       |              | 28             |                            |
| 9                | 2       |                    |                |           |                      |              | 11                 |               |                   |                       |              | 11             |                            |
| 2                | 5       | 2                  | 2              | 1         | 2                    | 7            |                    |               |                   | 2                     | 2            | 7              |                            |
| 2                | 6       |                    |                |           |                      |              |                    | 8             |                   |                       |              | 8              |                            |
| 270              | 123     | 135                | 140            | 51        | 67                   |              |                    | 524           |                   | 128                   | 9            | 524            |                            |
|                  | 4       |                    |                |           | 4                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 7                | 6       | 1                  | 6              | 4         | 2                    | 13           |                    |               |                   |                       |              | 13             |                            |
| 133              | 105     | 29                 | 39             | 24        | 71                   | 110          | 228                |               |                   | 13                    |              | 338            |                            |
| 67               | 50      | 9                  | 21             | 10        | 24                   | 56           | 61                 |               |                   |                       | 6            | 117            |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 45               | 16      | 13                 | 33             | 13        | 2                    | 21           | 9                  | 18            | 13                | 10                    |              | 61             |                            |
| 2                | 301     |                    | 1              | 19        | 145                  | 76           | 227                |               |                   |                       |              | 303            |                            |
| 115              | 193     | 8                  | 56             | 66        | 85                   | 55           | 253                |               |                   |                       |              | 306            |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. |       | Sanitary Condition. |        | Hours per Day. |               | Sex.         | Number of Employés.   |                                 |         | Nativity. |       |
|--|-----------------------|-------|---------------------|--------|----------------|---------------|--------------|-----------------------|---------------------------------|---------|-----------|-------|
|  | Good.                 | Fair. | Poor.               | Hours. | Minutes.       | Total Number. |              | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.  |       |
| DETROIT—Continued:                         |                       |       |                     |        |                |               |              |                       |                                 |         |           |       |
| Marble table top.....                      | 1                     | 1     |                     |        | 10             |               | Males.....   | 8                     | 7                               | 1       | 2         |       |
| Metal cornice.....                         | 3                     | 3     |                     |        | 10             |               | Males.....   | 30                    | 30                              |         | 9         | 21    |
| Metal novelties.....                       | 12                    | 12    |                     |        | 10             |               | Males.....   | 29                    | 29                              |         | 19        | 10    |
| Mirrors.....                               | 1                     | 1     |                     |        | 10             |               | Males.....   | 1                     | 1                               |         | 1         |       |
| Musical instruments.....                   | 1                     | 1     |                     |        | 10             |               | Males.....   | 70                    | 70                              |         | 20        | 50    |
| Oil cups.....                              | 1                     | 1     |                     |        | 10             |               | Males.....   | 4                     | 4                               |         | 4         |       |
| Optical instruments.....                   | 2                     | 2     |                     |        | 9              |               | Females..... | 11                    | 11                              |         | 7         | 4     |
|  |                       |       |                     |        |                |               | Males.....   | 23                    | 22                              | 1       | 17        | 6     |
| Overalls.....                              | 1                     | 1     |                     |        | 10             |               | Females..... | 30                    | 30                              |         |           |       |
|  |                       |       |                     |        |                |               | Males.....   | 10                    | 10                              |         |           |       |
| Patterns and models.....                   | 2                     | 2     |                     |        | 10             |               | Males.....   | 3                     | 3                               |         | 2         | 1     |
| Pictures and frames.....                   | 5                     | 5     |                     |        | 10             |               | Females..... | 10                    | 10                              |         | 10        |       |
|  |                       |       |                     |        |                |               | Males.....   | 62                    | 62                              |         | 54        | 8     |
| Pins.....                                  | 1                     | 1     |                     |        | 10             |               | Females..... | 23                    | 21                              | 2       | 23        |       |
|  |                       |       |                     |        |                |               | Males.....   | 13                    | 13                              |         | 12        | 1     |
| Planing mills, sash, doors and blinds..... | 14                    | 13    |                     |        | 10             |               | Males.....   | 672                   | 640                             | 32      | 144       | 200   |
| Pressed yeast.....                         | 1                     | 1     |                     |        | 8              |               | Males.....   | 5                     | 5                               |         | 4         | 1     |
| Regalias.....                              | 1                     | 1     |                     |        | 9              |               | Females..... | 25                    | 25                              |         | 24        | 1     |
|  |                       |       |                     |        |                |               | Males.....   | 9                     | 8                               | 1       | 7         | 1     |
| Sails.....                                 | 3                     | 3     |                     |        | 10             |               | Females..... | 4                     | 4                               |         | 3         | 1     |
|  |                       |       |                     |        |                |               | Males.....   | 9                     | 9                               |         | 8         | 1     |
| Saws.....                                  | 1                     |       |                     |        | 10             |               | Males.....   | 15                    | 15                              |         | 3         | 12    |
| Screen doors.....                          | 1                     | 1     |                     |        | 10             |               | Males.....   | 8                     | 6                               | 2       | 8         |       |
| Sewing machines.....                       | 1                     | 1     |                     |        | 9              |               | Females..... | 4                     | 4                               |         |           |       |
|  |                       |       |                     |        |                |               | Males.....   | 26                    | 26                              |         |           |       |
| Sewer pipes.....                           | 2                     | 2     |                     |        | 9              | 6             | Males.....   | 10                    | 10                              |         | 2         | 8     |
| Shirts.....                                | 3                     | 3     |                     |        | 9              | 28            | Females..... | 35                    | 35                              |         | 33        | 2     |
|  |                       |       |                     |        |                |               | Males.....   | 6                     | 6                               |         | 5         | 1     |
| Shoe uppers.....                           | 2                     | 2     |                     |        | 10             |               | Females..... | 4                     | 4                               |         | 3         | 1     |
|  |                       |       |                     |        |                |               | Males.....   | 4                     | 4                               |         | 2         | 2     |
| Show cases.....                            | 1                     | 1     |                     |        | 10             |               | Males.....   | 35                    | 32                              | 3       | 9         | 26    |
| Snow plows.....                            | 1                     | 1     |                     |        | 10             |               | Males.....   | 3                     | 2                               | 1       | 1         | 2     |
| Soap and potash.....                       | 3                     | 2     | 1                   |        | 10             |               | Females..... | 2                     | 2                               |         | 2         | 2     |
|  |                       |       |                     |        |                |               | Males.....   | 8                     | 8                               |         | 1         | 7     |
| Spices, etc.....                           | 2                     | 2     |                     |        | 10             |               | Females..... | 1                     | 1                               |         | 1         |       |
|  |                       |       |                     |        |                |               | Males.....   | 10                    | 10                              |         | 6         | 4     |
| Stained glass.....                         | 2                     | 2     |                     |        | 10             |               | Males.....   | 15                    | 15                              |         | 8         | 7     |
| Staves and heading.....                    | 1                     | 1     |                     |        | 10             |               | Males.....   | 75                    | 75                              |         |           |       |
| Stone cutting.....                         | 5                     | 4     |                     |        | 9              | 7             | Males.....   | 71                    | 71                              |         | 10        | 61    |
| Stencils and stamps.....                   | 2                     | 1     | 1                   |        | 9              |               | Males.....   | 9                     | 9                               |         | 7         | 2     |
| Stoves and ranges.....                     | 1                     | 1     |                     |        | 10             |               | Males.....   | 625                   | 569                             | 56      | 196       | 429   |
|  |                       |       |                     |        |                |               | Females..... | 5                     | 5                               |         | 5         |       |
| Suspenders and braces.....                 | 1                     | 1     |                     |        | 9              |               | Males.....   | 1                     |                                 | 1       | 1         | 2     |
| Tackle blocks.....                         | 1                     |       | 1                   |        | 10             |               | Males.....   | 12                    | 12                              |         | 10        | 2     |
| Tanneries.....                             | 4                     | 4     |                     |        | 10             |               | Males.....   | 110                   | 110                             |         | 14        | 96    |
| Telegraph poles and supplies.....          | 1                     | 1     |                     |        | 10             |               | Males.....   | 14                    | 13                              | 1       | 2         | 12    |
| Tin, copper and sheet iron works.....      | 7                     | 7     |                     |        | 10             |               | Males.....   | 58                    | 56                              | 2       | 31        | 27    |
| Tobacco machinery.....                     | 1                     | 1     |                     |        | 10             |               | Males.....   | 10                    | 10                              |         | 5         | 5     |
| Toys.....                                  | 1                     | 1     |                     |        | 10             |               | Males.....   | 2                     | 2                               |         | 1         | 1     |
| Trunks.....                                | 5                     | 5     |                     |        | 10             |               | Males.....   | 113                   | 98                              | 15      | 96        | 17    |
| Type-writers.....                          | 1                     | 1     |                     |        | 10             |               | Males.....   | 4                     | 4                               |         | 2         | 2     |
| Valves and hydrants.....                   | 1                     |       |                     |        | 10             |               | Males.....   | 90                    | 84                              | 6       | 70        | 20    |
| Varnish.....                               | 1                     | 1     |                     |        | 10             |               | Males.....   | 28                    | 28                              |         | 4         | 24    |
| Vessels.....                               | 1                     | 1     |                     |        | 10             |               | Males.....   | 40                    | 40                              |         |           |       |
| Vinegar.....                               | 1                     | 1     |                     |        | 13             |               | Females..... | 2                     | 2                               |         |           |       |
|  |                       |       |                     |        |                |               | Males.....   | 7                     | 7                               |         |           |       |
| White lead.....                            | 2                     | 2     |                     |        | 10             |               | Males.....   | 28                    | 28                              |         | 19        | 9     |
| Window shades.....                         | 1                     | 1     |                     |        | 10             |               | Males.....   | 2                     | 2                               |         |           |       |
|  |                       |       |                     |        |                |               | Females..... | 10                    | 10                              |         |           | 10    |
| Wire and iron works.....                   | 4                     | 4     |                     |        | 8              | 30            | Males.....   | 266                   | 251                             | 15      | 162       | 104   |
|  |                       |       | 1                   |        | 10             |               | Males.....   | 3                     | 2                               | 1       | 3         |       |
| Wood turning.....                          | 1                     |       | 1                   |        | 10             |               | Males.....   |                       |                                 |         |           |       |
| Woodenware.....                            | 1                     | 1     |                     |        | 10             |               | Males.....   | 40                    | 25                              | 15      | 10        | 30    |
| Total, city.....                           | 361                   | 315   | 9                   | 4      | 9              | 57            | Females..... | 2,290                 | 2,091                           | 199     | 1,115     | 439   |
|  |                       |       |                     |        |                |               | Males.....   | 8,655                 | 8,239                           | 416     | 2,785     | 3,806 |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 5                | 3       |                    |                |           |                      | 8            |                    |               |                   |                       | 1            | 8              |                            |
| 10               | 20      | 4                  | 6              | 18        | 2                    | 26           | 4                  |               |                   |                       | 3            | 30             |                            |
| 12               | 17      | 3                  | 9              | 6         | 11                   |              | 29                 |               |                   |                       |              | 29             |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       | 1            | 1              |                            |
| 45               | 15      | 8                  | 37             | 3         | 12                   | 70           |                    |               |                   |                       |              | 70             |                            |
| 1                | 3       |                    | 1              | 1         | 2                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 1                | 10      |                    |                | 1         | 10                   | 4            |                    |               |                   |                       |              | 4              |                            |
| 6                | 17      | 3                  | 3              | 13        | 4                    | 2            |                    |               |                   |                       |              | 2              |                            |
|                  |         |                    |                |           |                      | 30           |                    |               |                   |                       |              | 30             |                            |
|                  |         |                    |                |           |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 2                | 1       |                    |                |           | 2                    | 3            |                    |               |                   | 1                     | 1            | 3              |                            |
|                  | 10      |                    |                |           | 10                   | 10           |                    |               |                   |                       |              | 10             |                            |
| 18               | 44      | 10                 | 8              | 1         | 43                   | 52           |                    | 10            |                   | 1                     | 2            | 62             |                            |
|                  | 23      |                    |                |           | 23                   |              | 23                 |               |                   |                       |              | 23             |                            |
| 10               | 3       | 2                  | 8              |           | 3                    |              | 13                 |               |                   |                       |              | 13             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 217              | 143     | 73                 | 124            | 65        | 74                   | 447          | 225                |               |                   |                       | 18           | 672            |                            |
| 3                | 2       | 3                  |                | 2         |                      | 5            |                    |               |                   | 3                     |              | 5              |                            |
|                  | 25      |                    |                |           | 25                   | 25           |                    |               |                   |                       |              | 25             |                            |
| 6                | 2       |                    | 6              | 2         | 1                    | 9            |                    |               |                   |                       |              | 9              |                            |
|                  | 4       |                    |                | 2         | 2                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 5                | 4       | 1                  | 4              | 2         | 2                    | 9            |                    |               |                   |                       | 1            | 9              |                            |
| 5                | 10      | 2                  | 3              | 6         | 4                    | 15           |                    |               |                   | 3                     |              | 15             |                            |
| 2                | 6       | 1                  | 1              | 3         | 3                    | 8            |                    |               |                   |                       |              | 8              |                            |
|                  |         |                    |                |           |                      | 4            |                    |               |                   |                       |              | 4              |                            |
|                  |         |                    |                |           |                      | 26           |                    |               |                   |                       |              | 26             |                            |
| 3                | 7       | 1                  | 2              | 4         | 3                    | 10           |                    |               |                   |                       |              | 10             |                            |
| 3                | 32      |                    |                | 15        | 20                   | 35           |                    |               |                   |                       |              | 35             |                            |
| 2                | 4       |                    | 2              |           | 4                    | 6            |                    |               |                   |                       |              | 6              |                            |
|                  | 4       |                    |                |           | 4                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 2                | 2       |                    | 2              | 1         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 27               | 8       | 10                 | 17             |           | 8                    |              | 35                 |               |                   | 5                     |              |                |                            |
| 1                | 2       |                    | 1              | 1         | 1                    | 1            | 3                  |               |                   |                       |              | 3              |                            |
|                  | 2       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 5                | 3       | 2                  | 3              | 2         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 5                | 5       | 3                  | 1              | 4         | 2                    | 10           |                    |               |                   |                       |              | 10             |                            |
| 7                | 8       | 3                  | 4              | 5         | 3                    | 15           |                    |               |                   | 4                     | 2            | 15             |                            |
|                  |         |                    |                |           |                      |              |                    |               | 75                |                       |              | 75             |                            |
| 22               | 9       | 4                  | 8              | 4         | 4                    | 4            | 67                 |               |                   | 1                     |              | 71             |                            |
| 2                | 7       |                    | 2              | 5         | 2                    | 9            |                    |               |                   |                       |              | 9              |                            |
| 279              | 346     | 114                | 165            | 94        | 252                  |              | 625                |               |                   | 72                    | 125          | 625            |                            |
|                  | 5       |                    |                |           | 5                    | 5            |                    |               |                   |                       |              | 5              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 9                | 3       | 2                  | 9              | 1         |                      |              | 12                 |               |                   | 1                     |              | 12             |                            |
| 83               | 27      | 62                 | 21             | 10        | 17                   | 110          |                    |               |                   | 4                     |              | 110            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 5                | 9       | 1                  | 4              | 3         | 6                    | 14           |                    |               |                   |                       |              | 14             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 19               | 39      | 6                  | 13             | 12        | 27                   | 39           | 19                 |               |                   |                       | 11           | 58             |                            |
| 6                | 4       | 2                  | 4              |           | 4                    | 10           |                    |               |                   |                       |              | 10             |                            |
|                  | 2       |                    |                |           | 1                    | 1            |                    |               | 2                 |                       |              |                |                            |
| 47               | 66      | 12                 | 37             | 35        | 29                   | 5            | 108                |               |                   | 1                     | 15           | 113            |                            |
| 2                | 2       |                    | 2              | 2         |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 35               | 55      | 20                 | 15             | 23        | 32                   | 90           |                    |               |                   |                       | 6            | 90             |                            |
| 26               | 2       | 24                 | 2              |           | 2                    | 28           |                    |               |                   |                       |              | 28             |                            |
| 30               | 10      |                    |                |           |                      | 40           |                    |               |                   |                       |              | 40             |                            |
|                  | 2       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 6                | 1       |                    |                |           | 7                    | 7            |                    |               |                   |                       |              | 7              |                            |
| 8                | 20      | 2                  | 6              | 4         | 16                   | 28           |                    |               |                   | 3                     |              | 28             |                            |
|                  | 1       |                    |                |           | 2                    |              | 2                  |               |                   |                       |              | 2              |                            |
| 2                | 8       |                    |                |           |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 75               | 191     | 15                 | 28             | 62        | 27                   | 136          | 130                |               |                   | 30                    | 1            | 266            |                            |
| 1                | 2       | 1                  |                |           | 2                    | 3            |                    |               |                   |                       |              | 3              |                            |
| 15               | 25      |                    |                |           |                      |              | 40                 |               |                   |                       | 10           | 40             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 117              | 1,844   |                    | 25             | 119       | 1,192                | 1,671        | 481                | 131           |                   | 7                     | 4            | 2,283          |                            |
| 3,735            | 3,310   | 1,122              | 1,952          | 1,223     | 1,607                | 4,148        | 3,072              | 1,255         | 92                | 447                   | 362          | 8,527          |                            |



TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.                      | Number of Employés. |                       |                                 | Nativity.  |            |
|--|-----------------------|---------------------|-------|-------|----------------|----------|---------------------------|---------------------|-----------------------|---------------------------------|------------|------------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                           | Total Num-ber.      | Over 16 years of age. | Sixteen years of age and under. | Native.    | Foreign.   |
| DOWAGIAC:                                  |                       |                     |       |       |                |          |                           |                     |                       |                                 |            |            |
| Agricultural imple-ments.....              | 1                     | 1                   |       |       | 10             |          | Males .....               | 30                  | 30                    |                                 | 30         |            |
| Bee hives.....                             | 1                     | 1                   |       |       | 10             |          | Males .....               | 2                   | 2                     |                                 | 1          |            |
| Buildingstoneandmon-uments.....            | 1                     | 1                   |       |       | 10             |          | Males .....               | 3                   | 3                     |                                 | 2          | 1          |
| Cooperage.....                             | 2                     | 2                   |       |       | 10             |          | Males .....               | 9                   | 9                     |                                 | 9          |            |
| Flour and feed .....                       | 1                     | 1                   |       |       | 11             |          | Males .....               | 5                   | 5                     |                                 | 5          |            |
| Hardware.....                              | 1                     | 1                   |       |       | 10             |          | Males .....               | 3                   | 3                     |                                 | 3          |            |
| Lumber,lathand shin-gles.....              | 1                     | 1                   |       |       | 10             |          | Males .....               | 3                   | 3                     |                                 | 3          |            |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Males .....               | 13                  | 13                    |                                 | 10         | 3          |
| Stoves.....                                | 1                     | 1                   |       |       |                |          | { Females.<br>Males ..... | 1<br>100            | 1<br>98               | 2                               | 1<br>84    | 16         |
| Total, city.....                           | 11                    | 11                  |       |       | 10             | 5        | { Females.<br>Males ..... | 1<br>168            | 1<br>166              | 2                               | 1<br>147   | 20         |
| EAST SAGINAW:                              |                       |                     |       |       |                |          |                           |                     |                       |                                 |            |            |
| Breweries.....                             | 2                     | 1                   | 1     |       | 11             |          | Males .....               | 16                  | 16                    |                                 | 3          | 13         |
| Car building.....                          | 1                     | 1                   |       |       | 10             |          | Males .....               | 133                 | 133                   |                                 | 68         | 65         |
| Carriages, wagons and sleighs.....         | 1                     | 1                   |       |       | 10             |          | Males .....               | 15                  | 15                    |                                 | 11         | 4          |
| Cooperage.....                             | 2                     | 2                   |       |       | 10             |          | { Females.<br>Males ..... | 1<br>5              | —<br>5                | 1                               | 1<br>1     | 4          |
| Files.....                                 | 1                     | 1                   |       |       | 10             |          | { Females.<br>Males ..... | 1<br>15             | 1<br>14               | 1                               | 1<br>15    | —          |
| Flour and feed .....                       | 3                     | 3                   |       |       | 10             | 50       | Males .....               | 33                  | 33                    |                                 | 10         | 5          |
| Foundries and machine shops.....           | 5                     | 4                   | 1     |       | 10             |          | Males .....               | 282                 | 282                   |                                 | 142        | 130        |
| Furniture.....                             | 2                     | 2                   |       |       | 10             |          | Males .....               | 48                  | 47                    | 1                               | 6          | 42         |
| Lime.....                                  | 1                     | 1                   |       |       | 10             |          | Males .....               | 11                  | 11                    |                                 | —          | 11         |
| Lumber, shingles and salt.....             | 37                    | 34                  | 2     |       | 10             | 12       | Males .....               | 1,852               | 1,761                 | 91                              | 863        | 967        |
| Planing mills, sash, doors and blinds..... | 8                     | 8                   |       |       | 10             | 8        | Males .....               | 457                 | 433                   | 24                              | 291        | 162        |
| Pumps.....                                 | 1                     | —                   | 1     |       | 10             |          | Males .....               | 2                   | 2                     |                                 | 1          | 1          |
| Soaps.....                                 | 1                     | 1                   |       |       | 10             |          | Males .....               | 4                   | 4                     |                                 | 1          | 3          |
| Staves and heading.....                    | 2                     | 1                   | 1     |       | 11             |          | Males .....               | 17                  | 12                    | 5                               | 14         | 3          |
| Total, city.....                           | 67                    | 60                  | 6     |       | 10             | 46       | { Females.<br>Males ..... | 2<br>2,890          | 1<br>2,768            | 1<br>122                        | 1<br>1,426 | 1<br>1,410 |
| EAST TAWAS:                                |                       |                     |       |       |                |          |                           |                     |                       |                                 |            |            |
| Cooperage.....                             | 1                     | 1                   |       |       | 10             |          | Males .....               | 27                  | 17                    | 10                              | 15         | 12         |
| Lumber, shingles and salt.....             | 7                     | 5                   |       |       | 10             | 59       | Males .....               | 308                 | 304                   | 4                               | 97         | 125        |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males .....               | 8                   | 7                     | 1                               | 8          |            |
| Total, village.....                        | 9                     | 7                   |       |       | 10             | 53       | { Females.<br>Males ..... | 343                 | 328                   | 15                              | 120        | 137        |
| ESCANABA:                                  |                       |                     |       |       |                |          |                           |                     |                       |                                 |            |            |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       |                |          | Males .....               | 2                   | 2                     |                                 |            | 2          |
| Total, city.....                           | 1                     | 1                   |       |       |                |          | { Females.<br>Males ..... | 2<br>2              | 2<br>2                |                                 |            | 2          |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 17               | 13      | 11                 | 7              | 7         | 5                    |              | 30                 |               |                   |                       |              | 30             |                            |
| 1                | 1       |                    | 1              |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                |         | 3                  |                |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 9                |         | 5                  | 3              | 1         |                      | 9            |                    |               |                   | 1                     |              | 9              |                            |
| 2                | 3       | 1                  | 2              |           | 2                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 1                | 2       | 2                  |                |           | 1                    | 3            |                    |               |                   |                       |              | 3              |                            |
| 3                |         | 1                  | 2              |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 10               | 3       | 4                  | 6              | 3         |                      | 13           |                    |               |                   |                       |              | 13             |                            |
|                  | 1       |                    |                |           |                      |              | 1                  |               |                   |                       |              | 1              |                            |
| 78               | 22      | 31                 | 35             | 29        | 5                    |              | 100                |               |                   |                       |              | 100            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 124              | 1       |                    |                |           | 1                    |              | 1                  |               |                   |                       |              | 1              |                            |
|                  | 44      | 58                 | 56             | 40        | 13                   | 38           | 130                |               |                   | 1                     |              | 168            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 8                | 8       | 2                  | 7              | 7         |                      |              |                    | 16            |                   | 2                     |              | 16             |                            |
| 84               | 49      | 28                 | 56             | 34        | 15                   |              |                    | 133           |                   | 35                    |              | 133            |                            |
| 6                | 9       | 4                  | 4              | 7         |                      | 15           |                    |               |                   |                       | 1            | 15             |                            |
|                  | 1       |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 3                | 2       |                    | 1              | 3         |                      | 4            |                    | 1             |                   | 1                     |              | 4              | 1                          |
|                  | 1       |                    |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 2                | 13      |                    | 2              | 13        |                      | 15           |                    |               |                   |                       |              | 15             |                            |
| 10               | 5       | 14                 | 8              | 7         | 4                    | 30           |                    |               |                   | 5                     |              | 30             |                            |
| 201              | 81      | 113                | 91             | 57        | 20                   | 92           | 57                 | 133           |                   | 33                    | 5            | 282            |                            |
| 32               | 16      | 26                 | 7              | 1         | 14                   | 48           |                    |               |                   | 11                    |              | 48             |                            |
| 11               |         | 10                 | 1              |           |                      | 11           |                    |               |                   | 2                     |              | 11             |                            |
| 1,054            | 776     | 631                | 485            | 567       | 222                  | 109          | 1,489              | 250           |                   | 265                   |              | 1,837          | 15                         |
| 252              | 201     | 134                | 112            | 145       | 55                   | 96           | 361                |               |                   | 26                    |              | 457            |                            |
| 1                | 1       |                    | 2              |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                | 1       | 2                  | 1              |           | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 5                | 12      | 3                  |                |           | 13                   |              | 17                 |               |                   |                       |              | 17             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 1,672            | 1,174   | 867                | 777            | 841       | 344                  | 426          | 1,924              | 533           |                   | 380                   | 6            | 2,871          | 16                         |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 11               | 16      | 11                 |                | 6         | 10                   |              |                    | 27            |                   | 5                     |              | 27             |                            |
| 97               | 125     | 94                 | 28             | 118       | 9                    | 28           |                    | 280           |                   | 6                     |              | 308            |                            |
| 7                | 1       | 4                  | 3              |           | 1                    |              |                    |               |                   |                       |              | 8              |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 115              | 142     | 109                | 31             | 124       | 20                   | 28           |                    | 307           |                   | 11                    |              | 343            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 1                | 1       |                    | 1              | 1         |                      |              |                    | 2             |                   | 1                     |              | 2              |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 1                | 1       |                    | 1              | 1         |                      |              |                    | 2             |                   | 1                     |              | 2              |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                            | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |           | Sex.                | Number of Employés. |                       |                                 | Nativity.        |                  |
|---|-----------------------|---------------------|-------|-------|----------------|-----------|---------------------|---------------------|-----------------------|---------------------------------|------------------|------------------|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes.  |                     | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.          | Foreign.         |
| <b>FRANKLIN:</b>                              |                       |                     |       |       |                |           |                     |                     |                       |                                 |                  |                  |
| Boilers.....                                  | 2                     | 2                   |       |       | 10             |           | Males               | 12                  | 12                    |                                 | 9                | 3                |
| Foundries and machine shops.....              | 2                     | 2                   |       |       | 10             |           | Males               | 92                  | 92                    |                                 | 52               | 40               |
| <b>Total, town.....</b>                       | <b>4</b>              | <b>4</b>            |       |       | <b>10</b>      |           | { Females.<br>Males | <b>104</b>          | <b>104</b>            |                                 | <b>61</b>        | <b>43</b>        |
| <b>GRAND HAVEN:</b>                           |                       |                     |       |       |                |           |                     |                     |                       |                                 |                  |                  |
| Agricultural Imple-<br>ments.....             | 1                     | 1                   |       |       |                |           | Males               | 66                  | 66                    |                                 | 4                | 62               |
| Brooms.....                                   | 1                     | 1                   |       |       | 10             |           | { Females.<br>Males | <b>7</b><br>7       | <b>1</b><br>7         |                                 | <b>1</b><br>7    |                  |
| Canned goods.....                             | 1                     | 1                   |       |       |                |           | { Females.<br>Males | <b>25</b><br>2      | <b>8</b><br>6         | <b>17</b><br>1                  | <b>17</b><br>1   | <b>8</b>         |
| Cigars.....                                   | 2                     | 2                   |       |       | 10             |           | { Females.<br>Males | <b>13</b><br>40     | <b>12</b><br>31       | <b>1</b><br>9                   | <b>3</b><br>29   | <b>10</b><br>11  |
| Cooperage.....                                | 1                     | 1                   |       |       |                |           | { Females.<br>Males | <b>1</b><br>7       | <b>1</b><br>7         |                                 | <b>3</b><br>3    | <b>1</b><br>4    |
| Flour and feed.....                           | 1                     | 1                   |       |       | 11             |           | Males               | 260                 | 211                   | 49                              | 89               | 171              |
| Lumber, lath and shingles.....                | 1                     | 1                   |       |       | 11             |           | { Females.<br>Males | <b>35</b><br>14     | <b>19</b><br>9        | <b>16</b><br>5                  | <b>15</b><br>5   | <b>20</b><br>14  |
| Matches.....                                  | 1                     | 1                   |       |       | 10             |           | Males               | 20                  | 20                    |                                 | 10               | 10               |
| Machinery.....                                | 1                     | 1                   |       |       | 10             |           | Males               | 20                  | 19                    | 1                               | 10               | 10               |
| Planing mills, sash,<br>doors and blinds..... | 1                     | 1                   |       |       | 10             |           | Males               | 40                  | 40                    |                                 | 15               | 25               |
| Ship building.....                            | 2                     | 2                   |       |       | 10             |           | Males               | 25                  | 25                    |                                 | 10               | 15               |
| Tanneries.....                                | 1                     | 1                   |       |       | 10             |           | Males               | 25                  | 25                    |                                 | 10               | 15               |
| <b>Total, city.....</b>                       | <b>14</b>             | <b>14</b>           |       |       | <b>10</b>      | <b>37</b> | { Females.<br>Males | <b>64</b><br>519    | <b>30</b><br>453      | <b>34</b><br>66                 | <b>34</b><br>180 | <b>29</b><br>332 |
| <b>GRAND RAPIDS:</b>                          |                       |                     |       |       |                |           |                     |                     |                       |                                 |                  |                  |
| Agricultural implements                       | 1                     | 1                   |       |       | 10             |           | Males               | 30                  | 30                    |                                 | 23               | 7                |
| Baskets and fruit pack-<br>ages.....          | 1                     | 1                   |       |       | 10             |           | Males               | 8                   | 8                     |                                 | 6                | 2                |
| Bending works.....                            | 1                     | 1                   |       |       | 10             |           | Males               | 39                  | 39                    |                                 | 20               | 19               |
| Blank books.....                              | 1                     | 1                   |       |       | 10             |           | { Females.<br>Males | <b>13</b><br>11     | <b>13</b><br>11       |                                 | <b>13</b><br>5   | <b>6</b>         |
| Boiler works.....                             | 1                     | 1                   |       |       | 10             |           | Males               | 8                   | 8                     |                                 | 1                | 7                |
| Boots and shoes.....                          | 3                     | 3                   |       |       | 10             | 30        | { Females.<br>Males | <b>56</b><br>73     | <b>56</b><br>72       | <b>1</b>                        | <b>27</b><br>29  | <b>29</b><br>44  |
| Building stone and mon-<br>uments.....        | 1                     | 1                   |       |       |                |           | Males               | 3                   | 3                     |                                 | 1                | 2                |
| Boxes.....                                    | 4                     | 4                   |       |       | 10             |           | { Females.<br>Males | <b>5</b><br>275     | <b>5</b><br>198       |                                 | <b>5</b><br>85   | <b>190</b>       |
| Breweries.....                                | 6                     | 6                   |       |       | 10             |           | { Females.<br>Males | <b>1</b><br>75      | <b>1</b><br>74        | <b>1</b>                        | <b>12</b><br>63  | <b>1</b>         |
| Brooms.....                                   | 2                     | 2                   |       |       | 10             |           | Males               | 4                   | 4                     |                                 | 1                |                  |
| Carriages, wagons and<br>sleighs.....         | 4                     | 4                   |       |       | 10             |           | Males               | 84                  | 83                    | 1                               | 56               | 28               |
| Clothing.....                                 | 1                     | 1                   |       |       |                |           | { Females.<br>Males | <b>78</b><br>48     | <b>78</b><br>48       |                                 | <b>70</b><br>4   | <b>8</b><br>44   |
| Candies.....                                  | 1                     |                     |       |       | 10             |           | { Females.<br>Males | <b>22</b><br>36     | <b>22</b><br>34       |                                 | <b>22</b><br>2   |                  |
| Cigars.....                                   | 5                     | 5                   |       |       | 10             |           | { Females.<br>Males | <b>18</b><br>73     | <b>15</b><br>70       | <b>3</b><br>3                   | <b>15</b><br>53  | <b>3</b><br>20   |
| Cooperage.....                                | 4                     | 4                   |       |       | 9              | 24        | Males               | 102                 | 97                    | 5                               | 20               | 25               |
| Crackers.....                                 | 1                     | 1                   |       |       | 10             |           | Males               | 30                  | 27                    | 3                               | 8                | 22               |
| Excelsior.....                                | 2                     | 2                   |       |       | 10             |           | Males               | 36                  | 36                    |                                 | 18               | 18               |
| Extracts.....                                 | 2                     | 2                   |       |       | 10             |           | { Females.<br>Males | <b>5</b><br>16      | <b>3</b><br>10        | <b>2</b><br>6                   | <b>5</b><br>16   |                  |
| Files.....                                    | 1                     | 1                   |       |       | 10             |           | Males               | 4                   | 4                     |                                 | 4                |                  |
| Flour and feed.....                           | 5                     | 3                   |       |       | 10             |           | { Females.<br>Males | <b>1</b><br>44      | <b>1</b><br>43        |                                 | <b>1</b><br>34   | <b>10</b>        |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 3                | 9       | 2                  | 3              | 4         | 3                    |              |                    | 12            |                   |                       |              | 12             |                            |
| 45               | 47      | 21                 | 24             | 47        |                      |              |                    | 92            |                   |                       | 5            | 92             |                            |
| 48               | 56      | 23                 | 27             | 51        | 3                    |              |                    | 104           |                   |                       | 5            | 104            |                            |
| 4                | 62      |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 6                | 1       | 2                  | 4              | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 3                | 25      | 3                  |                |           | 3                    |              | 25                 |               |                   |                       |              | 25             |                            |
| 4                | 1       |                    | 2              | 8         | 3                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 7                | 33      | 4                  | 3              | 7         | 26                   | 13           |                    | 40            |                   |                       | 1            | 13             |                            |
| 5                | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 40             |                            |
| 132              | 2       | 1                  | 4              |           | 2                    | 7            |                    |               |                   |                       |              | 1              |                            |
| 2                | 128     | 78                 | 54             | 33        | 95                   |              |                    | 260           |                   | 31                    |              | 260            |                            |
| 6                | 35      | 1                  |                |           | 35                   |              |                    | 35            |                   |                       |              | 35             |                            |
| 10               | 12      |                    | 1              |           | 12                   |              |                    | 14            |                   |                       |              | 14             |                            |
| 36               | 14      | 2                  | 4              | 12        | 2                    |              |                    | 20            |                   |                       |              | 20             |                            |
| 24               | 10      | 5                  | 5              |           | 10                   |              |                    | 20            |                   |                       |              | 20             |                            |
|                  | 4       | 32                 | 4              | 4         |                      |              | 40                 |               |                   |                       |              | 40             |                            |
|                  | 1       | 20                 | 4              |           | 1                    | 25           |                    |               |                   |                       |              | 25             |                            |
| 239              | 63      |                    |                | 1         | 36                   | 4            | 25                 | 35            |                   |                       |              | 64             |                            |
| 279              | 279     | 148                | 85             | 65        | 154                  | 52           | 47                 | 354           |                   | 31                    | 1            | 453            |                            |
| 16               | 14      | 12                 | 4              | 14        |                      | 30           |                    |               |                   |                       |              | 30             |                            |
| 3                | 5       | 1                  | 2              | 5         |                      | 8            |                    |               |                   |                       |              | 8              |                            |
| 25               | 14      | 15                 | 10             | 14        |                      | 39           |                    |               |                   |                       |              | 39             |                            |
| 4                | 7       |                    | 4              | 6         | 13                   | 13           |                    |               |                   | 4                     |              | 13             |                            |
| 1                | 7       | 1                  |                | 6         | 1                    | 11           |                    |               |                   | 10                    | 2            | 11             |                            |
| 6                | 50      |                    | 4              | 12        | 6                    | 8            |                    |               |                   |                       |              | 8              |                            |
| 44               | 29      | 19                 | 25             | 23        | 40                   | 56           |                    |               |                   |                       |              | 56             |                            |
|                  |         |                    |                |           | 6                    | 73           |                    |               |                   |                       |              | 73             |                            |
| 1                | 4       | 2                  |                | 1         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 51               | 224     | 32                 | 20             | 67        | 4                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 1                |         |                    |                |           | 156                  | 25           | 250                |               |                   |                       |              | 275            |                            |
| 34               | 33      | 16                 | 24             | 34        | 1                    | 1            |                    | 1             |                   |                       |              | 1              |                            |
| 1                | 3       | 1                  | 1              | 3         |                      | 39           |                    | 36            |                   |                       |              | 75             |                            |
|                  |         |                    |                |           |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 47               | 37      | 21                 | 26             | 34        | 3                    | 84           |                    |               |                   |                       |              | 84             |                            |
| 30               | 48      | 4                  | 32             | 18        | 24                   | 78           |                    |               |                   |                       |              | 78             |                            |
| 36               | 12      | 30                 | 18             |           |                      | 48           |                    |               |                   |                       |              | 48             |                            |
|                  | 22      |                    |                |           | 22                   | 22           |                    |               |                   |                       | 12           | 22             |                            |
| 15               | 21      | 3                  | 12             | 3         | 18                   | 36           |                    |               |                   |                       | 20           | 36             |                            |
|                  | 17      |                    |                |           | 11                   | 18           |                    |               |                   |                       |              | 18             |                            |
| 16               | 56      | 6                  | 11             | 53        | 3                    | 73           |                    |               |                   |                       |              | 73             |                            |
| 26               | 17      | 20                 | 37             | 36        | 8                    | 102          |                    |               |                   | 5                     |              | 102            |                            |
| 13               | 17      | 10                 | 3              | 14        | 3                    | 30           |                    |               |                   |                       |              | 30             |                            |
| 16               | 20      | 5                  | 11             | 11        | 9                    | 38           |                    |               |                   |                       |              | 36             |                            |
|                  | 5       |                    |                |           | 5                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 7                | 8       | 7                  |                | 2         | 6                    | 16           |                    |               |                   |                       |              | 15             |                            |
| 3                | 1       | 3                  |                | 1         |                      | 4            |                    |               |                   |                       |              | 4              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 30               | 14      | 6                  | 25             | 10        | 3                    | 44           |                    |               |                   | 4                     |              | 44             |                            |

TABLE No. 27.—Continued.

| Class of Industry.                        | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.         | Number of Employés. |                       |                                 | Nativity. |          |  |
|---|-----------------------|---------------------|-------|-------|----------------|----------|--------------|---------------------|-----------------------|---------------------------------|-----------|----------|--|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |              | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |  |
| GRAND RAPIDS—Cont'd:                      |                       |                     |       |       |                |          |              |                     |                       |                                 |           |          |  |
| Foundries and machine shops.....          | 7                     | 5                   | ..... | ..... | 10             | .....    | Males .....  | 188                 | 185                   | 3                               | 118       | 70       |  |
| Furniture.....                            | 17                    | 17                  | ..... | ..... | 10             | .....    | Females..... | 16                  | 9                     | 7                               | 4         | 7        |  |
| Harnesses.....                            | 1                     | 1                   | ..... | ..... | .....          | .....    | Males .....  | 1,327               | 1,179                 | 148                             | 531       | 596      |  |
| Leather belting.....                      | 1                     | 1                   | ..... | ..... | .....          | .....    | Males .....  | 10                  | 10                    | .....                           | 5         | 5        |  |
| Lumber, lath and shingles.....            | 1                     | 1                   | ..... | ..... | .....          | .....    | Males .....  | 12                  | 12                    | .....                           | 9         | 3        |  |
| Machinery.....                            | 4                     | 4                   | ..... | ..... | 10             | .....    | Males .....  | 220                 | 220                   | .....                           | 65        | 127      |  |
| Manufactured chemicals.....               | 4                     | 4                   | ..... | ..... | 10             | .....    | Males .....  | 107                 | 107                   | .....                           | 84        | 23       |  |
| Musical instruments.....                  | 1                     | 1                   | ..... | ..... | 11             | .....    | Males .....  | 3                   | 3                     | .....                           | .....     | .....    |  |
| Patterns and models.....                  | 2                     | 2                   | ..... | ..... | 10             | .....    | Males .....  | 32                  | 32                    | .....                           | 18        | 14       |  |
| Planing mill, sash, doors and blinds..... | 1                     | 1                   | ..... | ..... | .....          | .....    | Males .....  | 1                   | 1                     | .....                           | .....     | 1        |  |
| Refrigerators.....                        | 5                     | 4                   | ..... | ..... | 10             | .....    | Males .....  | 118                 | 118                   | .....                           | 65        | 53       |  |
| Sporting goods.....                       | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 67                  | 50                    | 17                              | 44        | 23       |  |
| Tanneries.....                            | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 20                  | 20                    | .....                           | 16        | 4        |  |
| Tin and sheet iron.....                   | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 25                  | 25                    | .....                           | 8         | 17       |  |
| Trunks.....                               | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 14                  | 14                    | .....                           | 14        | .....    |  |
| Tools.....                                | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 2                   | 2                     | .....                           | 1         | 1        |  |
| Veneers and panels.....                   | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 6                   | 6                     | .....                           | 4         | 2        |  |
| Wheelbarrows.....                         | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 16                  | 16                    | .....                           | 14        | 2        |  |
| Woodenware.....                           | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 17                  | 15                    | 2                               | 13        | 4        |  |
|   | 2                     | 1                   | 2     | ..... | 10             | .....    | Females..... | 10                  | 10                    | .....                           | 2         | 8        |  |
|   |                       |                     |       |       |                |          | Males .....  | 228                 | 172                   | 56                              | 80        | 70       |  |
| Total, city.....                          | 100                   | 93                  | ..... | ..... | 10             | 40       | Females..... | 225                 | 213                   | 12                              | 164       | 56       |  |
|   |                       |                     |       |       |                |          | Males .....  | 3,412               | 3,086                 | 326                             | 1,521     | 1,522    |  |
| HANCOCK:                                  |                       |                     |       |       |                |          |              |                     |                       |                                 |           |          |  |
| Cigars.....                               | 1                     | 1                   | ..... | ..... | 8              | .....    | Males .....  | 1                   | 1                     | .....                           | 1         | .....    |  |
| Lumber, lath and shingles.....            | 2                     | 2                   | ..... | ..... | 10             | 38       | Males .....  | 125                 | 112                   | 13                              | 12        | 33       |  |
| Total, town.....                          | 3                     | 3                   | ..... | ..... | 10             | .....    | Females..... | .....               | .....                 | .....                           | .....     | .....    |  |
|   |                       |                     |       |       |                |          | Males .....  | 126                 | 113                   | 13                              | 13        | 33       |  |
| HANOVER:                                  |                       |                     |       |       |                |          |              |                     |                       |                                 |           |          |  |
| Windmills.....                            | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 2                   | 2                     | .....                           | 2         | .....    |  |
| Total, town.....                          | 1                     | 1                   | ..... | ..... | 10             | .....    | Females..... | 2                   | 2                     | .....                           | 2         | .....    |  |
|   |                       |                     |       |       |                |          | Males .....  | .....               | .....                 | .....                           | .....     | .....    |  |
| HARBOR SPRINGS:                           |                       |                     |       |       |                |          |              |                     |                       |                                 |           |          |  |
| Brooms.....                               | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 5                   | 3                     | 2                               | 5         | .....    |  |
| Flour and feed.....                       | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 2                   | 2                     | .....                           | 2         | .....    |  |
| Lumber and shingles.....                  | 1                     | 1                   | ..... | ..... | 10             | .....    | Males .....  | 10                  | 10                    | .....                           | 10        | .....    |  |
| Toothpicks.....                           | 1                     | .....               | ..... | ..... | 10             | .....    | Females..... | 11                  | 9                     | 2                               | 11        | .....    |  |
|   |                       |                     |       |       |                |          | Males .....  | 5                   | 4                     | 1                               | 5         | .....    |  |
| Total, town.....                          | 4                     | 3                   | ..... | ..... | 10             | .....    | Females..... | 11                  | 9                     | 2                               | 11        | .....    |  |
|   |                       |                     |       |       |                |          | Males .....  | 22                  | 19                    | 3                               | 22        | .....    |  |
| HILLSDALE:                                |                       |                     |       |       |                |          |              |                     |                       |                                 |           |          |  |
| Brooms.....                               | 1                     | 1                   | ..... | ..... | 10             | .....    | Males.....   | 4                   | 4                     | .....                           | 4         | .....    |  |
| Building stone and monuments.....         | 1                     | .....               | 1     | ..... | 10             | .....    | Males.....   | 9                   | 9                     | .....                           | 6         | 3        |  |
| Carriages, wagons and sleighs.....        | 3                     | 2                   | 1     | ..... | 10             | .....    | Males.....   | 28                  | 28                    | .....                           | 27        | 1        |  |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 101              | 87      | 49                 | 50             | 73        | 16                   | 146          |                    | 42            |                   | 5                     | 16           | 188            |                            |
| 3                | 13      |                    | 1              | 6         | 9                    | 14           | 2                  |               |                   |                       |              | 16             |                            |
| 612              | 715     | 278                | 322            | 429       | 293                  | 540          | 547                | 240           |                   | 11                    | 50           | 1,327          |                            |
| 5                | 5       | 2                  | 3              | 5         |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 5                | 7       | 2                  | 3              | 7         |                      | 12           |                    |               |                   |                       |              | 12             |                            |
| 81               | 111     | 49                 | 20             | 135       | 16                   | 35           |                    | 185           |                   |                       |              | 220            |                            |
| 53               | 54      | 21                 | 34             | 33        | 19                   | 62           | 45                 |               |                   | 13                    | 5            | 107            |                            |
|                  |         | 1                  | 1              | 1         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 9                | 23      | 3                  | 5              | 17        | 7                    | 30           |                    | 2             |                   |                       |              | 32             |                            |
| 1                |         |                    | 1              |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 86               | 32      | 41                 | 38             | 25        | 14                   | 118          |                    |               |                   |                       |              | 118            |                            |
| 19               | 48      | 8                  | 13             | 22        | 24                   | 67           |                    |               |                   | 3                     |              | 67             |                            |
| 15               | 5       | 2                  | 13             | 5         |                      | 20           |                    |               |                   |                       |              | 20             |                            |
| 13               | 12      | 6                  | 7              | 12        |                      | 25           |                    |               |                   | 3                     |              | 25             |                            |
| 8                | 6       | 2                  | 6              | 2         | 2                    | 14           |                    |               |                   |                       | 1            | 14             |                            |
|                  | 2       |                    |                | 2         |                      | 2            |                    |               |                   |                       |              |                |                            |
| 4                | 2       | 1                  | 4              |           | 1                    | 6            |                    |               |                   |                       | 1            | 6              |                            |
| 11               | 5       | 3                  | 5              | 8         |                      | 16           |                    |               |                   |                       |              | 16             |                            |
| 10               | 7       | 7                  | 4              | 4         | 2                    | 17           |                    |               |                   |                       |              | 17             |                            |
|                  | 10      |                    |                |           | 10                   |              | 10                 |               |                   |                       |              | 10             |                            |
| 47               | 103     | 35                 | 12             | 33        | 70                   | 78           | 150                |               |                   |                       |              | 228            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 41               | 183     | 4                  | 39             | 36        | 140                  | 212          | 12                 | 1             |                   | 4                     | 12           | 225            |                            |
| 1,468            | 1,763   | 719                | 774            | 1,152     | 682                  | 1,915        | 992                | 505           |                   | 54                    | 95           | 3,410          |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 25               | 20      | 6                  | 25             | 9         | 5                    |              |                    | 125           |                   |                       |              | 125            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 25               | 21      | 6                  | 25             | 10        | 5                    | 1            |                    | 125           |                   |                       |              | 126            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 2                |         |                    |                | 2         |                      |              |                    |               | 2                 |                       |              | 2              |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 2                |         |                    |                | 2         |                      |              |                    |               | 2                 |                       |              | 2              |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 2                | 3       |                    | 5              |           |                      | 5            |                    |               |                   | 1                     |              |                | 5                          |
| 5                | 5       |                    | 7              |           | 3                    | 10           |                    |               |                   |                       |              | 2              |                            |
|                  | 11      |                    |                |           | 11                   |              |                    | 11            |                   |                       |              | 10             |                            |
| 3                | 2       | 2                  | 1              | 2         |                      |              |                    | 5             |                   |                       |              | 11             |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 12               | 11      |                    |                |           | 11                   |              |                    | 11            |                   | 1                     |              | 11             |                            |
|                  | 10      | 2                  | 15             | 2         | 3                    | 17           |                    | 5             |                   |                       |              | 17             | 5                          |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 4                |         | 4                  |                |           |                      | 4            |                    |               |                   | 1                     |              | 4              |                            |
| 6                | 3       | 3                  | 3              | 2         | 1                    | 9            |                    |               |                   | 5                     | 1            | 9              |                            |
| 24               | 4       | 6                  | 18             | 1         | 3                    | 28           |                    |               |                   | 1                     |              | 28             |                            |

TABLE No. 27.—Continued.

| Class of Industry.                     | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.                        | Number of Employés. |                       |                                 | Nativity.     |          |  |
|--|-----------------------|---------------------|-------|-------|----------------|----------|-----------------------------|---------------------|-----------------------|---------------------------------|---------------|----------|--|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                             | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.       | Foreign. |  |
| HILLSDALE—Continued:                   |                       |                     |       |       |                |          |                             |                     |                       |                                 |               |          |  |
| Cigars                                 | 2                     | 2                   |       |       | 10             |          | { Females<br>Males<br>Males | 3<br>43<br>22       | 3<br>37<br>22         |                                 | 3<br>37<br>16 |          |  |
| Flour and feed                         | 1                     | 1                   |       |       | 12             |          |                             |                     |                       |                                 |               | 6<br>16  |  |
| Foundries and machine shops            | 2                     | 2                   |       |       | 10             |          |                             | Males               | 4                     | 4                               |               | 4        |  |
| Furniture                              | 2                     | 2                   |       |       | 10             |          | Males                       | 30                  | 29                    | 1                               | 24            | 6        |  |
| Planing mills, sash, doors and blinds. | 4                     | 4                   |       |       | 10             |          | Males                       | 24                  | 24                    |                                 | 24            |          |  |
| Total, city                            | 16                    | 14                  | 2     |       | 10             | 20       | { Females<br>Males          | 3<br>164            | 3<br>157              | 7                               | 3<br>142      | 22       |  |
| HOLLAND:                               |                       |                     |       |       |                |          |                             |                     |                       |                                 |               |          |  |
| Breweries                              | 1                     | 1                   |       |       | 11             |          | Males                       | 2                   | 2                     |                                 | 1             | 1        |  |
| Carriages, wagons and sleighs          | 1                     | 1                   |       |       | 10             |          | Males                       | 5                   | 5                     |                                 | 3             | 2        |  |
| Cigars                                 | 1                     | 1                   |       |       | 10             |          | Males                       | 2                   | 2                     |                                 |               | 2        |  |
| Cooperage                              | 1                     | 1                   |       |       | 10             |          | Males                       | 25                  | 22                    | 3                               | 25            |          |  |
| Flour and feed                         | 3                     | 3                   |       |       | 10             | 45       | Males                       | 28                  | 28                    |                                 | 11            | 17       |  |
| Planing mills, sash, doors and blinds. | 2                     | 2                   |       |       | 10             |          | Males                       | 20                  | 20                    |                                 | 7             | 13       |  |
| Pumps                                  | 1                     | 1                   |       |       | 10             |          | Males                       | 1                   | 1                     |                                 | 1             |          |  |
| Staves and heading                     | 1                     | 1                   |       |       | 10             |          | Males                       | 34                  | 30                    | 4                               | 25            | 9        |  |
| Tanneries                              | 1                     | 1                   |       |       | 10             |          | Males                       | 153                 | 153                   |                                 | 34            | 119      |  |
| Windmills                              | 1                     | 1                   |       |       | 10             |          | Males                       | 4                   | 4                     |                                 | 3             | 1        |  |
| Total, city                            | 13                    | 13                  |       |       | 11             | 5        | { Females<br>Males          |                     |                       |                                 |               |          |  |
|  |                       |                     |       |       |                |          |                             | 274                 | 267                   | 7                               | 110           | 164      |  |
| HOUGHTON:                              |                       |                     |       |       |                |          |                             |                     |                       |                                 |               |          |  |
| Cigars                                 | 1                     | 1                   |       |       | 8              |          | Males                       | 5                   | 4                     | 1                               | 2             | 3        |  |
| Copper mining                          | 2                     | 2                   |       |       | 10             |          | Males                       | 4,000               | 3,900                 | 10                              | 418           | 3,582    |  |
| Total, town                            | 3                     | 3                   |       |       | 9              | 36       | { Females<br>Males          |                     |                       |                                 |               |          |  |
|  |                       |                     |       |       |                |          |                             | 4,005               | 3,904                 | 11                              | 420           | 3,585    |  |
| HOWELL:                                |                       |                     |       |       |                |          |                             |                     |                       |                                 |               |          |  |
| Carriages, wagons and sleighs          | 1                     | 1                   |       |       | 10             |          | Males                       | 4                   | 4                     |                                 | 2             | 2        |  |
| Cigars                                 | 1                     | 1                   |       |       |                |          | Males                       | 9                   | 8                     | 1                               | 9             |          |  |
| Cooperage                              | 1                     | 1                   |       |       | 10             |          | Males                       | 6                   | 6                     |                                 | 6             |          |  |
| Foundries and machine shops            | 1                     | 1                   |       |       | 10             |          | Males                       | 18                  | 18                    |                                 | 14            | 4        |  |
| Lime                                   | 1                     | 1                   |       |       | 12             |          | Males                       | 2                   | 2                     |                                 |               | 2        |  |
| Total, town                            | 5                     | 5                   |       |       | 10             | 8        | { Females<br>Males          |                     |                       |                                 |               |          |  |
|  |                       |                     |       |       |                |          |                             | 39                  | 38                    | 1                               | 31            | 8        |  |
| JACKSON:                               |                       |                     |       |       |                |          |                             |                     |                       |                                 |               |          |  |
| Agricultural Implements                | 1                     | 1                   |       |       | 10             |          | Males                       | 24                  | 24                    |                                 | 24            |          |  |
| Blank books                            | 1                     | 1                   |       |       | 10             |          | { Females<br>Males          | 1<br>3              | 1<br>2                |                                 | 1<br>2        |          |  |
| Boilers                                | 1                     | 1                   |       |       | 10             |          | Males                       | 2                   | 2                     |                                 | 2             | 1        |  |
| Building stone and monuments           | 1                     | 1                   |       |       | 10             |          | Males                       | 6                   | 6                     |                                 | 6             |          |  |
| Carriages, wagons and sleighs          | 6                     | 6                   |       |       | 10             |          | { Females<br>Males          | 3<br>74             | 3<br>74               |                                 |               | 3<br>18  |  |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 1                | 2       |                    |                | 3         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 11               | 32      |                    | 6              | 35        | 2                    | 43           |                    |               |                   | 6                     |              | 43             |                            |
| 20               | 2       | 12                 | 8              | 2         |                      | 22           |                    |               |                   |                       |              | 22             |                            |
| 3                | 1       | 2                  | 1              | 1         |                      | 4            |                    |               |                   | 1                     |              | 4              |                            |
| 17               | 13      | 10                 | 7              | 8         | 5                    | 30           |                    |               |                   |                       |              | 30             |                            |
| 20               | 4       | 15                 | 6              | 1         | 2                    | 24           |                    |               |                   |                       |              | 24             |                            |
| 1                | 2       |                    |                | 3         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 105              | 59      | 52                 | 49             | 50        | 13                   | 164          |                    |               |                   | 14                    | 1            | 164            |                            |
| 1                | 1       |                    | 1              |           | 1                    | 1            |                    | 1             |                   |                       |              | 2              |                            |
| 4                | 1       | 2                  | 1              | 2         |                      | 5            |                    |               |                   |                       |              | 5              |                            |
| 7                | 18      | 3                  | 5              | 2         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 19               | 9       | 9                  | 11             | 6         | 15                   | 21           | 25                 |               | 7                 | 5                     |              | 25             |                            |
| 9                | 11      | 8                  | 3              | 6         | 3                    | 7            | 13                 |               |                   | 1                     |              | 20             |                            |
| 10               | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 106              | 24      | 7                  | 1              | 26        | 26                   | 1            | 34                 |               |                   | 2                     |              | 34             |                            |
| 3                | 47      | 67                 | 42             | 15        | 29                   | 4            | 153                |               |                   | 41                    |              | 153            |                            |
|                  | 1       | 2                  | 1              |           | 1                    |              |                    |               |                   | 1                     |              | 4              |                            |
| 159              | 115     | 98                 | 65             | 34        | 77                   | 41           | 191                | 42            |                   | 50                    |              | 274            |                            |
| 2,430            | 5       | 820                | 1,416          | 3         | 2                    | 5            |                    | 4,000         |                   |                       |              | 5              |                            |
|                  | 1,570   |                    |                | 1,213     | 551                  |              |                    |               |                   |                       |              | 4,000          |                            |
| 2,430            | 1,575   | 890                | 1,416          | 1,216     | 553                  | 5            |                    | 4,000         |                   |                       |              | 4,005          |                            |
| 2                | 2       | 2                  |                | 1         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 2                | 9       |                    |                | 4         | 5                    | 9            |                    |               |                   |                       |              | 9              |                            |
|                  | 4       | 1                  | 1              | 4         |                      |              |                    |               |                   |                       |              | 6              |                            |
| 15               | 3       | 8                  | 6              | 2         | 2                    | 18           |                    |               |                   |                       | 2            | 18             |                            |
|                  | 2       |                    |                |           |                      |              |                    | 2             |                   |                       |              | 2              |                            |
| 19               | 20      | 11                 | 7              | 11        | 8                    | 31           |                    | 2             |                   |                       | 2            | 39             |                            |
| 16               | 8       | 11                 | 5              | 6         | 2                    | 24           |                    |               |                   |                       |              | 24             |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 3       |                    |                | 3         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 1                | 1       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 4                | 2       |                    | 4              | 2         |                      | 6            |                    |               |                   |                       |              | 6              |                            |
| 2                | 1       |                    | 2              |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 37               | 37      | 20                 | 17             | 30        | 7                    | 70           |                    |               | 4                 | 6                     |              | 74             |                            |



TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.    | Number of Employés. |                       |                                 | Nativity. |          |
|--|-----------------------|---------------------|-------|-------|----------------|----------|---------|---------------------|-----------------------|---------------------------------|-----------|----------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |         | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| JACKSON—Continued:                         |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Cigars.....                                | 4                     | 4                   |       |       | 10             |          | Males   | 26                  | 16                    | 10                              | 23        |          |
| Cooperage.....                             | 3                     | 3                   |       |       | 10             |          | Males   | 41                  | 41                    |                                 | 38        |          |
| Corsets, bustles and skirts.....           | 3                     | 3                   |       |       | 10             |          | Females | 325                 | 314                   | 11                              | 306       | 19       |
| Edged tools.....                           | 1                     |                     | 1     |       | 10             |          | Males   | 33                  | 33                    |                                 | 28        | 5        |
| Engines, etc.....                          | 1                     | 1                   |       |       | 10             |          | Males   | 10                  | 10                    |                                 | 3         | 7        |
| Flour and feed.....                        | 4                     | 3                   |       |       | 10             | 7        | Males   | 20                  | 20                    |                                 | 20        |          |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 10             |          | Males   | 92                  | 92                    |                                 | 78        | 14       |
| Furniture.....                             | 2                     | 2                   |       |       | 10             |          | Females | 5                   |                       | 5                               | 5         |          |
| Knit goods.....                            | 1                     | 1                   |       |       | 10             |          | Males   | 26                  | 21                    | 5                               | 22        | 4        |
| Machinery.....                             | 4                     | 4                   |       |       | 10             |          | Females | 52                  | 45                    | 7                               | 46        | 6        |
| Mining coal.....                           | 1                     | 1                   |       |       | 7              |          | Males   | 6                   | 2                     |                                 | 5         |          |
| Paper.....                                 | 1                     | 1                   |       |       | 12             |          | Females | 6                   | 6                     |                                 | 1         |          |
| Paper boxes.....                           | 1                     | 1                   |       |       | 10             |          | Males   | 452                 | 417                   | 35                              | 59        | 11       |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Females | 31                  | 31                    |                                 | 6         | 25       |
| Pulp.....                                  | 1                     | 1                   |       |       | 10             |          | Males   | 6                   | 6                     |                                 | 5         | 1        |
| Sewer pipe.....                            | 1                     | 1                   |       |       | 10             |          | Females | 26                  | 26                    |                                 | 14        | 12       |
| Sewer pipe machinery.....                  | 1                     | 1                   |       |       | 10             |          | Males   | 15                  | 14                    | 1                               | 15        |          |
| Soaps.....                                 | 1                     | 1                   |       |       | 10             |          | Females | 3                   | 3                     |                                 | 3         |          |
| Spring beds.....                           | 1                     | 1                   |       |       | 10             |          | Males   | 77                  | 73                    | 4                               | 72        | 3        |
| Umbrellas.....                             | 1                     | 1                   |       |       | 10             |          | Males   | 26                  | 26                    |                                 | 14        | 12       |
| Underwear.....                             | 1                     | 1                   |       |       | 10             |          | Males   | 80                  | 74                    | 6                               | 10        | 70       |
|  |                       |                     |       |       |                |          | Males   | 10                  | 10                    |                                 | 7         | 3        |
|  |                       |                     |       |       |                |          | Females | 2                   | 2                     |                                 | 2         |          |
|  |                       |                     |       |       |                |          | Males   | 24                  | 22                    | 2                               | 21        | 3        |
|  |                       |                     |       |       |                |          | Females | 3                   | 3                     |                                 | 3         | 1        |
|  |                       |                     |       |       |                |          | Males   | 3                   | 3                     |                                 | 2         |          |
|  |                       |                     |       |       |                |          | Males   | 2                   | 2                     |                                 | 2         |          |
|  |                       |                     |       |       |                |          | Females | 84                  | 80                    | 4                               |           |          |
|  |                       |                     |       |       |                |          | Males   | 9                   | 9                     |                                 |           |          |
| Total, city.....                           | 46                    | 44                  | 1     |       | 10             | 1        | Females | 452                 | 431                   | 21                              | 339       | 24       |
|  |                       |                     |       |       |                |          | Males   | 1,158               | 1,088                 | 70                              | 564       | 201      |
| LAKESIDE:                                  |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Lumber, shingles and salt.....             | 7                     | 5                   |       |       | 10             | 16       | Males   | 387                 | 372                   | 15                              | 102       | 154      |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males   | 44                  | 42                    | 2                               | 17        | 27       |
| Total, town.....                           | 8                     | 6                   |       |       | 10             | 14       | Females |                     |                       |                                 |           |          |
|  |                       |                     |       |       |                |          | Males   | 431                 | 414                   | 17                              | 119       | 181      |
| LANSING:                                   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Building stone and monuments.....          | 1                     | 1                   |       |       | 10             |          | Males   | 6                   | 5                     | 1                               | 1         | 5        |
| Butterine.....                             | 1                     | 1                   |       |       | 10             |          | Males   | 5                   | 5                     |                                 | 5         |          |
| Carriages, wagons and sleighs.....         | 3                     | 3                   |       |       | 10             |          | Males   | 204                 | 197                   | 7                               | 150       | 54       |
| Cigars.....                                | 4                     | 4                   |       |       | 8              | 56       | Females | 2                   | 2                     |                                 | 1         | 1        |
| Cooperage.....                             | 2                     | 2                   |       |       | 10             |          | Males   | 18                  | 17                    | 1                               | 5         | 3        |
| Crackers.....                              | 2                     | 1                   |       |       | 10             |          | Males   | 7                   | 7                     |                                 | 5         | 2        |
| Flour and feed.....                        | 4                     | 4                   |       |       | 12             |          | Females | 1                   | 1                     |                                 | 1         |          |
| Foundries and machine shops.....           | 4                     | 4                   |       |       | 10             |          | Males   | 11                  | 11                    |                                 | 11        |          |
| Furniture.....                             | 3                     | 3                   |       |       | 10             |          | Males   | 24                  | 24                    |                                 | 20        | 4        |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males   | 80                  | 80                    |                                 | 38        | 42       |
| Sporting goods.....                        | 4                     | 4                   |       |       | 10             |          | Males   | 16                  | 16                    |                                 | 11        | 5        |
| Staves and heading.....                    | 1                     | 1                   |       |       | 10             |          | Males   | 61                  | 61                    |                                 | 59        | 2        |
| Tannery.....                               | 1                     | 1                   |       |       | 10             |          | Males   | 15                  | 15                    |                                 | 15        |          |
|  | 1                     | 1                   |       |       | 10             |          | Males   | 75                  | 75                    |                                 | 35        | 40       |
|  | 1                     | 1                   |       |       | 10             |          | Males   | 2                   | 2                     |                                 |           | 2        |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 6                | 20      | 2                  | 3              | 5         | 16                   | 25           |                    | 1             |                   | 6                     |              | 26             |                            |
| 34               | 7       | 4                  | 30             | 2         | 5                    | 41           |                    |               |                   | 2                     |              | 41             |                            |
| 237              | 298     |                    | 9              | 82        | 161                  | 325          |                    |               |                   | 10                    |              | 325            |                            |
| 23               | 10      | 21                 | 2              | 3         |                      | 33           |                    |               |                   |                       |              | 33             |                            |
|                  |         | 3                  | 2              | 3         | 2                    | 10           |                    |               |                   | 1                     | 3            | 10             |                            |
| 12               | 8       | 4                  | 6              | 8         | 3                    |              |                    | 20            |                   | 3                     |              | 20             |                            |
| 55               | 37      | 28                 | 29             | 32        | 3                    | 92           |                    |               |                   | 2                     |              | 92             |                            |
|                  | 5       |                    |                |           | 5                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 18               | 8       | 12                 | 6              |           | 5                    | 26           |                    |               |                   | 10                    |              | 26             |                            |
| 20               | 31      | 8                  | 13             | 15        | 16                   | 52           |                    |               |                   | 6                     | 7            | 52             |                            |
|                  | 2       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 4                | 2       | 2                  | 2              | 2         |                      | 6            |                    |               |                   | 2                     |              | 6              |                            |
| 1                | 5       |                    |                |           | 1                    | 1            |                    | 5             |                   |                       |              | 6              |                            |
| 218              | 234     | 17                 | 11             | 37        | 4                    | 419          |                    | 33            |                   | 3                     | 5            | 452            |                            |
| 25               | 6       | 7                  | 12             | 6         | 6                    |              | 31                 |               |                   |                       |              | 31             |                            |
| 1                | 5       |                    |                | 1         | 5                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 20               | 6       | 5                  | 14             | 7         |                      | 26           |                    |               |                   | 18                    |              | 26             |                            |
|                  | 15      |                    |                |           | 15                   | 15           |                    |               |                   |                       |              | 15             |                            |
|                  | 2       | 1                  |                | 2         |                      | 3            |                    |               |                   | 1                     |              | 3              |                            |
| 25               | 29      | 10                 | 15             | 7         | 22                   | 77           |                    |               |                   |                       |              | 77             |                            |
| 22               | 4       | 20                 | 2              | 2         | 2                    |              |                    | 26            |                   |                       |              | 26             |                            |
| 51               | 29      | 22                 | 27             | 25        | 6                    | 80           |                    |               |                   | 35                    |              | 80             |                            |
| 8                | 2       | 5                  | 3              | 1         | 1                    | 10           |                    |               |                   | 4                     |              | 10             |                            |
|                  | 2       |                    |                | 2         | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
| 6                | 18      | 3                  | 3              | 14        | 4                    | 24           |                    |               |                   | 4                     |              | 24             |                            |
|                  | 3       |                    |                | 3         |                      |              |                    |               |                   |                       |              |                |                            |
| 2                | 1       | 1                  | 1              |           | 1                    |              |                    |               |                   |                       |              | 2              |                            |
| 11               | 69      |                    |                | 1         | 1                    | 2            |                    |               |                   |                       |              | 84             |                            |
| 6                | 3       |                    |                |           |                      | 84           |                    |               |                   |                       |              | 9              |                            |
|                  |         |                    |                |           |                      | 9            |                    |               |                   |                       |              |                |                            |
| 42               | 406     |                    | 11             | 87        | 192                  | 444          |                    | 5             |                   |                       | 10           | 449            |                            |
| 615              | 509     | 205                | 208            | 213       | 107                  | 1,040        | 31                 | 80            | 4                 | 103                   | 15           | 1,155          |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 105              | 151     | 86                 | 49             | 142       | 37                   | 186          | 82                 | 119           |                   | 14                    |              | 387            |                            |
|                  |         | 9                  | 7              | 22        | 6                    |              |                    | 44            |                   |                       |              | 44             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 105              | 151     | 95                 | 56             | 164       | 43                   | 186          | 82                 | 163           |                   | 14                    |              | 431            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 1                | 5       |                    | 1              | 3         | 2                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 3                | 2       | 1                  | 2              | 2         |                      |              |                    | 5             |                   |                       |              |                |                            |
| 100              | 59      | 45                 | 55             | 49        | 10                   | 75           | 129                |               |                   | 20                    | 10           | 204            |                            |
|                  | 1       |                    |                |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 4                | 5       | 1                  | 7              | 1         | 5                    | 18           |                    |               |                   |                       | 1            | 18             |                            |
| 7                | 1       | 6                  |                |           |                      | 5            |                    | 2             |                   | 1                     |              | 5              |                            |
|                  |         |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 1                | 1       | 1                  | 2              |           | 3                    | 11           |                    |               |                   |                       |              | 11             |                            |
| 21               | 3       | 10                 | 10             | 2         |                      | 24           |                    |               |                   | 2                     |              | 24             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 56               | 24      | 12                 | 25             | 32        | 9                    | 14           | 66                 |               |                   | 9                     |              | 80             |                            |
| 11               | 5       | 7                  | 5              | 2         | 2                    | 16           |                    |               |                   |                       |              |                | 16                         |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 42               | 19      | 15                 | 34             | 10        | 2                    | 36           |                    |               |                   | 2                     |              | 61             |                            |
| 8                | 7       | 4                  | 6              |           | 5                    |              |                    |               |                   |                       |              | 15             |                            |
| 50               | 25      | 18                 | 32             | 25        |                      |              | 15                 |               |                   |                       |              | 75             |                            |
| 2                |         | 1                  |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                          | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.                         | Number of Employés. |                       |                                 | Nativity.     |              |          |
|---|-----------------------|---------------------|-------|-------|----------------|----------|------------------------------|---------------------|-----------------------|---------------------------------|---------------|--------------|----------|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |                              | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.       | Foreign.     |          |
| LANSING—Continued:                          |                       |                     |       |       |                |          |                              |                     |                       |                                 |               |              |          |
| Wheels .....                                | 1                     | 1                   |       |       | 10             |          | { Females.<br>Males<br>Males | 1<br>15<br>21       | 1<br>15<br>21         |                                 | 1<br>15<br>17 |              |          |
| Wheelbarrows .....                          | 1                     | 1                   |       |       | 9              |          |                              |                     |                       |                                 |               |              | 4        |
| Total, city .....                           | 30                    | 28                  |       |       | 10             | 32       |                              | { Females.<br>Males | 4<br>560              | 4<br>551                        | 9             | 2<br>387     | 1<br>163 |
| LOWELL:                                     |                       |                     |       |       |                |          |                              |                     |                       |                                 |               |              |          |
| Carriages, wagons and sleighs .....         | 1                     | 1                   |       |       | 10             |          | Males<br>Males<br>Males      | 31<br>16<br>5       | 31<br>16<br>5         |                                 | 28<br>14<br>3 | 3<br>2<br>2  |          |
| Cooperage .....                             | 2                     | 2                   |       |       | 10             |          |                              |                     | 14                    | 14                              |               | 10           | 4        |
| Edged tools .....                           | 1                     | 1                   |       |       | 10             |          |                              | Males               | 4                     | 4                               |               | 4            |          |
| Flour and feed .....                        | 2                     | 2                   |       |       | 10             |          | Males<br>Males<br>Males      | 4<br>3<br>3         | 4<br>3<br>3           |                                 | 4<br>3<br>3   |              |          |
| Furniture .....                             | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Handles .....                               | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Lumber, shingles and lath .....             | 1                     | 1                   |       |       | 11             |          | Males<br>Females             | 42<br>1             | 40<br>1               | 2                               | 40<br>1       | 2            |          |
| Woolen goods .....                          | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Total, town .....                           | 10                    | 10                  |       |       | 10             | 28       | { Females.<br>Males          | 1<br>115            | 1<br>113              | 2                               | 1<br>102      | 13           |          |
| MASON:                                      |                       |                     |       |       |                |          |                              |                     |                       |                                 |               |              |          |
| Carriages, wagons and sleighs .....         | 3                     | 2                   |       |       | 10             |          | Males<br>Males<br>Females    | 49<br>1<br>8        | 49<br>1<br>2          |                                 | 49<br>1<br>8  |              |          |
| Churns .....                                | 1                     | 1                   |       |       | 10             |          |                              |                     | 3                     | 3                               | 1             | 3            |          |
| Evaporating fruits .....                    | 1                     | 1                   |       |       | 10             |          |                              | Males               | 3                     | 3                               |               | 2            | 1        |
| Flour and feed .....                        | 1                     | 1                   |       |       | 12             |          | Males<br>Males<br>Males      | 10<br>3<br>25       | 10<br>3<br>17         |                                 | 10<br>2<br>25 |              |          |
| Lumber, lath and shingles .....             | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Planing-mills, sash, doors and blinds ..... | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              | 1        |
| Staves and heading .....                    | 1                     | 1                   |       |       | 10             |          |                              | 25                  | 17                    | 8                               | 25            |              |          |
| Total, city .....                           | 9                     | 8                   |       |       | 10             | 2        | { Females.<br>Males          | 8<br>94             | 8<br>85               | 9                               | 8<br>92       | 2            |          |
| MIDLAND:                                    |                       |                     |       |       |                |          |                              |                     |                       |                                 |               |              |          |
| Cooperage .....                             | 1                     | 1                   |       |       | 10             |          | Males<br>Males<br>Males      | 5<br>4<br>113       | 5<br>4<br>110         |                                 | 5<br>2<br>90  |              |          |
| Flour and feed .....                        | 1                     |                     |       |       | 11             |          |                              |                     | 3                     | 3                               |               | 3            | 21       |
| Lumber, shingles and salt .....             | 3                     | 3                   |       |       | 11             |          |                              | { Females.<br>Males | 3<br>104              | 3<br>96                         | 3<br>8        | 3<br>63      | 41       |
| Woodenware .....                            | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Total, town .....                           | 6                     | 5                   |       |       | 10             | 40       | { Females.<br>Males          | 3<br>226            | 3<br>215              | 11                              | 3<br>160      | 64           |          |
| MONROE:                                     |                       |                     |       |       |                |          |                              |                     |                       |                                 |               |              |          |
| Agricultural imple-ments .....              | 1                     | 1                   |       |       | 10             |          | Males<br>Males<br>Males      | 19<br>8<br>31       | 17<br>8<br>31         | 2                               | 18<br>1<br>15 | 1<br>7<br>16 |          |
| Breweries .....                             | 1                     | 1                   |       |       | 11             |          |                              |                     |                       |                                 |               |              |          |
| Brick and tile .....                        | 2                     | 2                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |
| Carriages, wagons and sleighs .....         | 2                     | 2                   |       |       | 10             |          | Males<br>Males<br>Males      | 12<br>4<br>2        | 12<br>3<br>2          |                                 | 10<br>3<br>3  | 2<br>1<br>1  |          |
| Cigars .....                                | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 | 1             |              |          |
| Cooperage .....                             | 1                     | 1                   |       |       | 10             |          |                              |                     |                       |                                 |               |              |          |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 9                | 1       |                    |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 15               | 6       | 7                  | 6              | 9         |                      | 15           |                    |               |                   |                       |              | 15             |                            |
|                  | 6       |                    | 8              | 6         |                      | 21           |                    |               |                   |                       |              | 21             |                            |
| 330              | 167     | 123                | 199            | 142       | 38                   | 4            | 243                | 7             |                   | 34                    | 11           | 537            | 16                         |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 17               | 14      | 8                  | 10             | 6         | 7                    |              |                    | 31            |                   |                       | 1            | 31             |                            |
| 13               | 3       | 9                  | 4              | 2         | 1                    | 16           |                    |               |                   |                       | 2            | 16             |                            |
| 4                | 1       |                    | 5              |           |                      | 5            |                    |               |                   |                       |              | 5              |                            |
| 11               | 3       | 8                  | 2              | 2         | 2                    | 14           |                    |               |                   | 2                     |              | 14             |                            |
| 2                | 2       | 2                  | 1              | 1         | 1                    | 4            |                    |               |                   | 1                     | 1            | 4              |                            |
| 1                | 2       | 1                  |                |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 28               | 14      | 11                 | 5              | 17        | 9                    |              |                    | 42            |                   |                       |              | 42             |                            |
|                  | 1       |                    | 1              |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 76               | 1       |                    | 1              |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 39      | 39                 | 27             | 29        | 20                   | 42           |                    | 73            |                   | 3                     | 4            | 115            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 35               | 14      | 15                 | 16             | 16        | 2                    | 49           |                    |               |                   | 8                     |              | 49             |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 7                | 3       | 7                  |                |           | 1                    | 8            |                    |               |                   |                       |              | 8              |                            |
|                  |         |                    |                | 1         | 1                    | 3            |                    |               |                   |                       |              | 3              |                            |
| 2                | 1       | 2                  |                |           | 1                    | 3            |                    |               |                   |                       |              | 3              |                            |
| 7                | 3       |                    | 7              | 3         |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 3                |         | 2                  | 1              |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 12               | 13      | 7                  | 5              | 2         | 11                   | 25           |                    |               |                   |                       |              | 25             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 7                | 1       | 7                  |                |           | 1                    | 8            |                    |               |                   |                       |              | 8              |                            |
| 59               | 35      | 24                 | 31             | 23        | 15                   | 94           |                    |               |                   | 8                     |              | 94             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 3                | 2       | 1                  | 1              | 3         |                      |              |                    | 5             |                   | 1                     |              | 5              |                            |
| 3                | 1       |                    | 2              | 1         |                      | 4            |                    |               |                   | 1                     |              | 4              |                            |
| 64               | 48      | 48                 | 30             | 22        | 13                   |              |                    | 113           |                   | 1                     |              | 81             | 32                         |
|                  |         |                    |                |           | 3                    |              |                    | 3             |                   |                       |              | 3              |                            |
| 32               | 72      | 8                  | 29             | 50        | 17                   |              |                    | 104           |                   |                       |              | 104            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 102              | 123     | 58                 | 62             | 76        | 30                   | 4            |                    | 3             |                   | 3                     |              | 3              | 32                         |
|                  |         |                    |                |           |                      |              |                    | 222           |                   |                       |              | 194            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 12               | 7       | 2                  | 8              | 5         | 4                    | 19           |                    |               |                   |                       |              | 19             |                            |
| 5                | 3       | 1                  | 4              | 3         |                      | 8            |                    |               |                   | 1                     |              | 8              |                            |
| 14               | 17      | 8                  | 8              | 7         | 8                    | 31           |                    |               |                   |                       |              | 31             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 5                | 7       | 5                  | 3              |           | 4                    | 12           |                    |               |                   |                       |              | 12             |                            |
| 2                | 2       | 1                  | 1              | 2         |                      | 3            |                    | 1             |                   |                       |              | 4              |                            |
|                  |         |                    |                | 2         |                      | 2            |                    |               |                   |                       |              | 2              |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                          | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.    | Number of Employés. |                       |                                 | Nativity. |          |
|---|-----------------------|---------------------|-------|-------|----------------|----------|---------|---------------------|-----------------------|---------------------------------|-----------|----------|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |         | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| MONROE—Continued:                           |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Flour and feed .....                        | 2                     | 2                   |       |       | 11             | 30       | Males   | 13                  | 13                    |                                 | 9         |          |
| Foundries and machine shops .....           | 1                     | 1                   |       |       | 10             |          | Males   | 5                   | 5                     |                                 | 3         | 2        |
| Paper .....                                 | 3                     | 3                   |       |       | 10             | 30       | Females | 4                   | 3                     | 1                               | 2         | 2        |
|   |                       |                     |       |       |                |          | Males   | 47                  | 41                    | 6                               | 39        | 8        |
| Planing mills, sash, doors and blinds ..... | 3                     | 3                   |       |       | 10             |          | Males   | 28                  | 28                    |                                 | 26        | 2        |
| Scouring brick .....                        | 1                     | 1                   |       |       | 10             |          | Males   | 5                   | 5                     |                                 | 5         |          |
| Woolens .....                               | 1                     | 1                   |       |       | 10             |          | Males   | 5                   | 3                     | 2                               | 5         |          |
|   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Total, city .....                           | 19                    | 19                  |       |       | 10             | 33       | Females | 4                   | 3                     | 1                               | 2         | 2        |
|   |                       |                     |       |       |                |          | Males   | 179                 | 168                   | 11                              | 134       | 43       |
| MONTAGUE:                                   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Baskets .....                               | 2                     | 1                   |       |       | 10             |          | Females | 25                  | 15                    | 10                              | 21        | 4        |
| Flour and feed .....                        | 1                     | 1                   |       |       | 10             |          | Males   | 100                 | 64                    | 36                              | 80        | 20       |
| Foundries and machine shops .....           | 1                     | 1                   |       |       | 10             |          | Males   | 4                   | 4                     |                                 | 3         | 1        |
| Lumber, shingles and lath .....             | 4                     | 4                   |       |       | 10             | 7        | Males   | 25                  | 25                    |                                 | 13        | 12       |
|   |                       |                     |       |       |                |          |         | 292                 | 286                   | 6                               | 37        | 103      |
|   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Total, town .....                           | 8                     | 7                   |       |       | 10             |          | Females | 25                  | 15                    | 10                              | 21        | 4        |
|   |                       |                     |       |       |                |          | Males   | 421                 | 379                   | 42                              | 133       | 136      |
| MUSKEGON:                                   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Baskets and fruit packages .....            | 1                     | 1                   |       |       | 10             |          | Females | 20                  | 20                    |                                 | 10        | 10       |
| Boiler works .....                          | 1                     |                     |       |       | 10             |          | Males   | 20                  | 20                    |                                 | 10        | 10       |
| Breweries .....                             | 1                     | 1                   |       |       | 10             |          | Males   | 6                   | 6                     |                                 | 6         |          |
| Carriages, wagons and sleighs .....         | 1                     |                     |       |       | 10             |          | Males   | 18                  | 18                    |                                 | 2         | 16       |
| Cigars .....                                | 2                     | 2                   |       |       | 10             |          | Males   | 18                  | 18                    |                                 | 13        | 5        |
|   | 4                     | 2                   |       | 2     | 9              | 51       | Females | 1                   | 1                     |                                 | 1         | 1        |
| Clothing .....                              | 1                     | 1                   |       |       | 14             |          | Males   | 26                  | 22                    | 4                               | 18        | 7        |
| Foundries and machine shops .....           | 1                     |                     |       |       | 10             |          | Females | 1                   | 1                     |                                 | 1         |          |
| Furniture .....                             | 3                     | 2                   | 1     |       | 10             |          | Males   | 12                  | 12                    |                                 | 2         | 10       |
| Harnesses .....                             | 1                     |                     |       |       | 10             |          | Males   | 34                  | 34                    |                                 | 20        | 14       |
| Lime .....                                  | 1                     | 1                   |       |       | 10             |          | Males   | 100                 | 85                    | 15                              | 75        | 25       |
| Lumber, shingles and salt .....             | 1                     | 1                   |       |       | 10             |          | Males   | 3                   | 3                     |                                 |           |          |
| Planing-mills, sash, doors and blinds ..... | 1                     | 1                   |       |       | 10             |          | Males   | 4                   | 4                     |                                 | 2         | 2        |
| Pop works .....                             | 15                    | 11                  | 1     |       | 10             | 56       | Females | 1                   | 1                     |                                 | 1         |          |
| Saws .....                                  | 2                     | 2                   |       |       | 10             |          | Males   | 1,491               | 1,409                 | 82                              | 422       | 539      |
|   |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Total, city .....                           | 36                    | 26                  | 2     | 2     | 10             | 13       | Females | 23                  | 23                    |                                 | 12        | 11       |
|   |                       |                     |       |       |                |          | Males   | 1,780               | 1,678                 | 102                             | 607       | 639      |
| NILES:                                      |                       |                     |       |       |                |          |         |                     |                       |                                 |           |          |
| Breweries .....                             | 1                     | 1                   |       |       | 10             |          | Males   | 2                   | 2                     |                                 |           | 2        |
| Carriages, wagons and sleighs .....         | 2                     | 2                   |       |       | 10             |          | Males   | 18                  | 18                    |                                 | 16        | 2        |
| Cigars .....                                | 1                     | 1                   |       |       | 10             |          | Males   | 1                   | 1                     |                                 | 1         |          |
| Cooperage .....                             | 1                     | 1                   |       |       | 10             |          | Males   | 30                  | 30                    |                                 | 16        | 14       |
| Flour and feed .....                        | 1                     | 1                   |       |       | 11             |          | Males   | 30                  | 30                    |                                 | 25        | 5        |
| Furniture .....                             | 2                     | 2                   |       |       | 10             |          | Females | 1                   | 1                     |                                 | 1         |          |
|   |                       |                     |       |       |                |          | Males   | 16                  | 15                    | 1                               | 15        | 1        |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 11               | 2       | 8                  | 5              |           |                      | 13           |                    |               |                   | 1                     |              | 13             |                            |
| 2                | 3       | 2                  | 1              | 1         | 1                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 28               | 4       |                    |                |           | 4                    |              | 2                  | 2             |                   |                       |              | 4              |                            |
|                  | 19      | 14                 | 15             | 5         | 12                   |              | 21                 | 26            |                   | 6                     |              | 47             |                            |
| 12               | 16      | 9                  | 3              | 15        | 1                    | 28           |                    |               |                   | 1                     |              | 28             |                            |
|                  | 5       |                    |                | 1         | 4                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 1                | 4       |                    |                | 3         | 2                    | 5            |                    |               |                   |                       |              | 5              |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 92               | 4       |                    |                |           | 4                    |              | 2                  | 2             |                   |                       |              | 4              |                            |
|                  | 85      | 50                 | 48             | 44        | 36                   | 131          | 21                 | 27            |                   | 9                     |              | 179            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 25               | 25      |                    |                |           | 25                   |              | 25                 |               |                   |                       |              | 25             |                            |
| 3                | 70      | 15                 | 9              | 33        | 33                   |              | 100                |               |                   | 23                    |              | 100            |                            |
|                  | 1       | 2                  | 1              | 1         |                      |              |                    | 4             |                   | 2                     |              | 4              |                            |
| 22               | 3       | 23                 |                | 1         | 1                    | 25           |                    |               |                   | 10                    |              | 25             |                            |
| 110              | 61      | 116                | 73             | 75        | 15                   |              | 114                | 178           |                   | 71                    |              | 292            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 160              | 25      |                    |                |           | 25                   |              | 25                 |               |                   |                       |              | 25             |                            |
|                  | 135     | 156                | 83             | 110       | 49                   | 25           | 214                | 182           |                   | 106                   |              | 421            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 4                | 16      |                    | 4              | 8         | 8                    | 20           |                    |               |                   |                       |              | 20             |                            |
| 7                | 13      | 4                  | 6              | 4         | 6                    | 20           |                    |               |                   | 4                     |              | 20             |                            |
| 5                | 1       | 4                  | 1              | 1         |                      |              | 6                  |               |                   |                       |              | 6              |                            |
| 6                | 12      | 2                  | 4              | 12        |                      | 18           |                    |               |                   | 5                     |              | 18             |                            |
| 12               | 6       | 2                  | 10             | 6         |                      | 18           |                    |               |                   |                       |              | 18             |                            |
|                  | 1       |                    |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 6                | 20      | 1                  | 4              | 7         | 11                   | 26           |                    |               |                   | 1                     |              | 26             |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   | 1                     |              | 1              |                            |
| 2                | 10      | 1                  | 1              | 10        |                      | 12           |                    |               |                   | 12                    |              | 12             |                            |
| 18               | 15      | 8                  | 7              | 13        | 5                    | 34           |                    |               |                   |                       | 4            | 34             |                            |
| 33               | 67      | 10                 | 24             | 51        | 15                   |              | 100                |               |                   |                       | 45           | 100            |                            |
|                  |         | 2                  |                | 1         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 3                |         | 2                  | 1              |           | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
|                  | 1       |                    |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 280              | 267     | 135                | 158            | 223       | 104                  | 249          | 998                | 244           |                   | 26                    | 6            | 1,253          |                            |
| 24               | 8       | 13                 | 6              | 12        | 1                    | 7            | 25                 |               |                   |                       |              | 32             |                            |
| 1                | 4       |                    |                | 4         | 1                    | 5            |                    |               |                   |                       | 2            | 5              |                            |
| 9                | 2       | 3                  | 4              | 3         | 1                    | 11           |                    |               |                   |                       |              | 11             |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 4                | 19      |                    | 4              | 8         | 9                    | 23           |                    |               |                   | 1                     |              | 23             |                            |
| 406              | 423     | 187                | 226            | 347       | 145                  | 407          | 1,129              | 244           |                   | 48                    | 57           | 1,542          |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 1                | 1       | 1                  |                | 1         |                      |              |                    | 2             |                   |                       |              | 2              |                            |
| 16               | 2       | 11                 | 5              |           | 2                    | 18           |                    |               |                   |                       |              | 18             |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 25               | 5       | 16                 | 11             |           | 3                    | 30           |                    |               |                   |                       |              | 30             |                            |
| 25               | 5       | 8                  | 9              | 8         | 5                    |              |                    | 30            |                   | 6                     |              | 30             |                            |
| 1                |         |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 5                | 11      |                    | 4              | 2         | 9                    | 16           |                    |               |                   |                       |              | 16             |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.     | Number of Employés. |                       |                                 | Nativity. |          |
|--|-----------------------|---------------------|-------|-------|----------------|----------|----------|---------------------|-----------------------|---------------------------------|-----------|----------|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |          | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |
| NILES—Continued:                           |                       |                     |       |       |                |          |          |                     |                       |                                 |           |          |
| Knit goods.....                            | 1                     | 1                   |       |       | 10             |          | Females. | 125                 | 125                   |                                 | 125       |          |
| Paper.....                                 | 1                     | 1                   |       |       | 12             |          | Females. | 10                  | 10                    |                                 | 10        |          |
| Pulp.....                                  | 1                     | 1                   |       |       | 11             |          | Males    | 31                  | 31                    |                                 | 9         | 22       |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Males    | 53                  | 52                    | 1                               | 28        | 25       |
| Straw board.....                           | 1                     | 1                   |       |       | 10             |          | Males    | 4                   | 4                     |                                 | 3         | 1        |
| Wire and iron works.....                   | 1                     | 1                   |       |       | 10             |          | Males    | 75                  | 72                    | 3                               | 73        | 2        |
|  | 1                     | 1                   |       |       | 10             |          | Males    | 4                   | 4                     |                                 | 4         |          |
| Total, city.....                           | 15                    | 15                  |       |       | 10             | 14       | Females. | 136                 | 136                   |                                 | 136       |          |
|  |                       |                     |       |       |                |          | Males    | 264                 | 259                   | 5                               | 190       | 74       |
| PORT HURON:                                |                       |                     |       |       |                |          |          |                     |                       |                                 |           |          |
| Boilers.....                               | 1                     | 1                   |       |       | 10             |          | Males    | 15                  | 14                    | 1                               | 12        | 3        |
| Breweries.....                             | 1                     | 1                   |       |       | 11             |          | Males    | 6                   | 6                     |                                 | 2         | 4        |
| Brooms.....                                | 1                     | 1                   |       |       | 10             |          | Males    | 13                  | 13                    |                                 | 11        | 2        |
| Building stone and monuments.....          | 2                     | 2                   |       |       | 10             |          | Males    | 12                  | 12                    |                                 | 6         | 6        |
| Flour and feed.....                        | 3                     | 3                   |       |       | 11             | 55       | Males    | 47                  | 47                    |                                 | 18        | 29       |
| Founderies and machine shops.....          | 2                     | 1                   |       |       | 10             |          | Males    | 11                  | 10                    | 1                               |           | 1        |
| Harnesses.....                             | 1                     | 1                   |       |       | 10             |          | Males    | 21                  | 18                    | 3                               | 6         | 15       |
| Lime.....                                  | 1                     | 1                   |       |       | 11             |          | Males    | 4                   | 4                     |                                 | 1         | 3        |
| Lumber, lath, and shingles.....            | 2                     | 2                   |       |       | 11             |          | Males    | 73                  | 69                    | 4                               | 43        | 30       |
| Machinery.....                             | 1                     | 1                   |       |       | 10             |          | Males    | 74                  | 74                    |                                 | 65        | 9        |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Males    | 31                  | 29                    | 2                               | 21        | 10       |
| Ship building.....                         | 2                     | 2                   |       |       | 10             |          | Males    | 135                 | 135                   |                                 | 41        | 94       |
| Tin and sheet iron.....                    | 1                     |                     | 1     |       | 10             |          | Males    | 4                   | 4                     |                                 | 2         | 2        |
| Total, city.....                           | 20                    | 17                  | 1     |       | 10             | 23       | Females. |                     |                       |                                 |           |          |
|  |                       |                     |       |       |                |          | Males    | 446                 | 435                   | 11                              | 228       | 208      |
| REED CITY:                                 |                       |                     |       |       |                |          |          |                     |                       |                                 |           |          |
| Brick and tile.....                        | 1                     | 1                   |       |       | 10             |          | Males    | 10                  | 6                     | 4                               | 3         | 7        |
| Cigars.....                                | 1                     | 1                   |       |       | 10             |          | Males    | 10                  | 9                     | 1                               | 6         | 4        |
| Flour and feed.....                        | 2                     | 2                   |       |       | 12             |          | Males    | 8                   | 8                     |                                 | 6         | 2        |
| Furniture.....                             | 1                     | 1                   |       |       | 10             |          | Males    | 6                   | 5                     | 1                               | 4         | 2        |
| Lumber, shingles and lath.....             | 2                     | 1                   | 1     |       | 10             |          | Males    | 5                   | 5                     |                                 | 3         | 2        |
| Planing mills, sash, doors and blinds..... | 2                     |                     | 2     |       | 10             |          | Males    | 21                  | 19                    | 2                               | 7         | 14       |
| Staves and heading.....                    | 1                     | 1                   |       |       |                |          | Males    | 6                   | 6                     |                                 | 3         | 3        |
| Woolens.....                               | 1                     |                     | 1     |       | 10             |          | Females. | 2                   | 2                     |                                 |           | 2        |
|  |                       |                     |       |       |                |          | Males    | 3                   | 3                     |                                 | 1         |          |
| Total, city.....                           | 11                    | 7                   | 4     |       | 10             | 58       | Females. | 2                   | 2                     |                                 |           | 2        |
|  |                       |                     |       |       |                |          | Males    | 69                  | 61                    | 8                               | 33        | 36       |
| SAGINAW:                                   |                       |                     |       |       |                |          |          |                     |                       |                                 |           |          |
| Boxes.....                                 | 1                     | 1                   |       |       | 10             |          | Females. | 25                  | 21                    | 4                               | 22        | 3        |
| Breweries.....                             | 1                     | 1                   |       |       | 10             |          | Males    | 33                  | 18                    | 15                              | 22        | 11       |
| Carriages, wagons and sleighs.....         | 1                     | 1                   |       |       |                |          | Males    | 10                  | 10                    |                                 |           | 10       |
| Cigars.....                                | 2                     | 1                   | 1     |       | 10             | 15       | Males    | 5                   | 5                     |                                 | 2         | 3        |
| Crackers.....                              | 2                     | 1                   | 1     |       | 10             |          | Males    | 4                   | 3                     | 1                               | 1         | 2        |
|  | 1                     | 1                   |       |       | 10             |          | Females. | 2                   | 1                     | 1                               | 2         |          |
|  | 1                     | 1                   |       |       | 10             |          | Males    | 5                   | 5                     |                                 | 3         | 2        |
| Curtain rollers.....                       | 2                     | 1                   | 1     |       | 10             |          | Females. | 1                   | 1                     |                                 | 1         |          |
|  |                       |                     |       |       |                |          | Males    | 38                  | 34                    | 4                               | 24        | 14       |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 30               | 95      |                    | 30             |           | 95                   |              | 125                |               |                   |                       |              | 125            |                            |
| 31               | 10      |                    | 15             | 5         | 5                    |              | 10                 |               |                   |                       |              | 10             |                            |
| 32               | 20      | 16                 | 12             | 10        | 10                   |              | 31                 | 53            |                   | 40                    |              | 31             | 53                         |
| 1                | 1       | 2                  | 1              |           | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 65               | 10      | 15                 | 50             | 7         | 3                    |              |                    | 75            |                   | 10                    |              | 75             |                            |
| 1                | 3       | 1                  |                |           | 3                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 31               | 103     |                    | 30             | 6         | 100                  | 1            | 135                |               |                   |                       |              | 136            |                            |
| 202              | 59      | 90                 | 107            | 29        | 36                   | 73           | 31                 | 160           |                   | 56                    |              | 264            |                            |
| 11               | 4       | 3                  | 8              | 3         | 1                    | 15           |                    |               |                   | 2                     |              | 15             |                            |
| 4                | 2       |                    | 4              | 2         |                      | 6            |                    |               |                   | 2                     |              | 6              |                            |
| 9                | 4       | 1                  | 5              | 7         |                      | 13           |                    |               |                   | 2                     |              | 13             |                            |
| 7                | 5       | 2                  | 1              | 9         |                      | 12           |                    |               |                   | 3                     |              | 12             |                            |
| 5                |         | 12                 | 31             | 4         |                      | 47           |                    |               |                   | 1                     |              | 47             |                            |
| 1                |         | 2                  | 3              | 3         | 3                    | 11           |                    |               |                   |                       | 3            | 11             |                            |
| 15               | 6       | 5                  | 6              | 8         | 2                    | 21           |                    |               |                   |                       |              | 21             |                            |
| 3                | 1       | 1                  |                |           |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 45               | 28      | 28                 | 15             | 22        | 8                    | 73           |                    |               |                   | 9                     | 5            | 73             |                            |
| 54               | 20      | 13                 | 9              | 35        | 17                   | 74           |                    |               |                   | 23                    |              | 74             |                            |
| 18               | 13      | 8                  | 11             | 8         | 4                    | 31           |                    |               |                   |                       |              | 31             |                            |
| 125              | 10      | 41                 | 80             | 14        |                      | 135          |                    |               |                   |                       |              | 135            |                            |
| 1                | 3       |                    | 1              | 3         |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 298              | 96      | 116                | 174            | 118       | 35                   | 446          |                    |               |                   | 42                    | 8            | 446            |                            |
| 5                | 5       | 3                  | 3              |           | 4                    | 10           |                    |               |                   |                       |              | 10             |                            |
| 1                | 9       |                    | 1              | 8         | 1                    | 10           |                    |               |                   |                       | 3            | 10             |                            |
| 5                | 3       | 4                  | 1              | 3         |                      | 8            |                    |               |                   |                       |              | 8              |                            |
| 4                | 2       | 3                  | 1              |           | 2                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 3                | 2       | 1                  | 2              | 1         | 1                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 11               | 10      | 9                  | 2              | 4         | 6                    | 21           |                    |               |                   |                       |              | 21             |                            |
| 6                |         | 2                  | 4              |           |                      | 6            |                    |               |                   |                       |              | 6              |                            |
| 2                | 2       |                    |                |           | 2                    | 2            |                    |               |                   |                       |              | 2              |                            |
|                  | 1       | 1                  | 1              |           | 1                    | 3            |                    |               |                   |                       | 1            | 3              |                            |
| 37               | 32      | 23                 | 15             | 16        | 15                   | 69           |                    |               |                   |                       | 4            | 69             |                            |
| 3                | 25      |                    |                |           | 25                   |              | 25                 |               |                   |                       |              | 25             |                            |
| 6                | 30      |                    | 3              | 1         | 29                   |              | 33                 |               |                   | 3                     |              | 33             |                            |
|                  | 4       | 4                  | 3              |           |                      | 10           |                    |               |                   | 3                     |              | 10             |                            |
| 3                | 2       | 1                  | 4              |           |                      | 5            |                    |               |                   |                       |              | 5              |                            |
| 1                | 2       | 1                  | 2              |           | 1                    | 4            |                    |               |                   | 1                     | 1            | 4              |                            |
|                  | 2       |                    |                |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
|                  | 5       |                    |                |           |                      | 5            |                    |               |                   |                       |              | 5              |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
| 18               | 20      | 9                  | 9              | 5         | 15                   | 38           |                    |               |                   | 4                     |              | 38             |                            |



TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.       | Number of Employés. |                       |                                 | Nativity. |          |  |
|--|-----------------------|---------------------|-------|-------|----------------|----------|------------|---------------------|-----------------------|---------------------------------|-----------|----------|--|
|  |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |            | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |  |
| <b>SAGINAW—Continued:</b>                  |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |  |
| Flour and feed.....                        | 1                     | 1                   |       |       | 10             |          | Males...   | 3                   | 3                     |                                 |           | 3        |  |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 10             |          | Males...   | 1                   | 1                     |                                 |           | 1        |  |
| Hoops.....                                 | 1                     | 1                   |       |       | 10             |          | Males...   | 11                  | 9                     | 2                               | 7         | 4        |  |
| Lumber, shingles and salt.....             | 12                    | 11                  | 1     |       | 10             | 27       | Females... | 24                  | 21                    | 3                               | 21        | 3        |  |
| Planing mills, sash, doors and blinds..... | 2                     | 2                   |       |       | 10             |          | Males...   | 1,375               | 1,279                 | 96                              | 459       | 756      |  |
|  |                       |                     |       |       |                |          | Males...   | 140                 | 121                   | 19                              | 66        | 74       |  |
| Total, city.....                           | 32                    | 26                  | 5     |       | 10             | 20       | Females... | 52                  | 44                    | 8                               | 46        | 6        |  |
|  |                       |                     |       |       |                |          | Males...   | 1,625               | 1,488                 | 137                             | 584       | 880      |  |
| <b>SCHOOLCRAFT:</b>                        |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |  |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Females... | 90                  | 86                    | 4                               | 25        | 65       |  |
|  |                       |                     |       |       |                |          | Males...   |                     |                       |                                 |           |          |  |
| <b>ST. JOSEPH:</b>                         |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |  |
| Baskets.....                               | 1                     | 1                   |       |       |                |          | Females... | 10                  | 10                    |                                 |           |          |  |
| Cider and vinegar.....                     | 1                     |                     | 1     |       | 9              |          | Males...   | 115                 | 103                   | 12                              |           |          |  |
| Foundries and machine shops.....           | 1                     | 1                   |       |       | 9              |          | Males...   | 6                   | 6                     |                                 | 2         | 4        |  |
| Knitting works.....                        | 1                     | 1                   |       |       | 11             |          | Males...   | 5                   | 5                     |                                 | 2         | 3        |  |
|  |                       |                     |       |       |                |          | Females... | 378                 | 367                   | 11                              | 301       | 77       |  |
|  |                       |                     |       |       |                |          | Males...   | 56                  | 51                    | 5                               | 48        | 8        |  |
| Total, town.....                           | 4                     | 3                   | 1     |       | 10             | 43       | Females... | 388                 | 377                   | 11                              | 301       | 77       |  |
|  |                       |                     |       |       |                |          | Males...   | 182                 | 165                   | 17                              | 52        | 15       |  |
| <b>ST. LOUIS:</b>                          |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |  |
| Brick and tile.....                        | 1                     | 1                   |       |       | 11             |          | Males...   | 15                  | 13                    | 2                               | 15        |          |  |
| Carriages, wagons and sleighs.....         | 2                     | 2                   |       |       | 10             |          | Males...   | 9                   | 9                     |                                 | 9         |          |  |
| Cigars.....                                | 3                     | 3                   |       |       | 8              |          | Males...   | 6                   | 5                     | 1                               | 2         | 2        |  |
| Flour and feed.....                        | 1                     | 1                   |       |       | 12             |          | Males...   | 4                   | 4                     |                                 | 3         | 1        |  |
| Foundries and machine shop.....            | 1                     | 1                   |       |       | 10             |          | Males...   | 4                   | 4                     |                                 |           |          |  |
| Hoops.....                                 | 1                     | 1                   |       |       | 9              |          | Males...   | 10                  | 10                    |                                 | 6         | 4        |  |
| Lumber, shingles and lath.....             | 2                     | 2                   |       |       | 11             |          | Males...   | 73                  | 73                    |                                 | 35        | 18       |  |
| Planing mills, sash, doors and blinds..... | 1                     | 1                   |       |       | 10             |          | Males...   | 2                   | 2                     |                                 | 2         |          |  |
| Staves and heading.....                    | 1                     |                     |       |       | 10             |          | Males...   | 50                  | 42                    | 8                               | 49        | 1        |  |
| Woolens.....                               | 1                     | 1                   |       |       | 10             |          | Females... | 2                   | 2                     |                                 | 2         |          |  |
|  |                       |                     |       |       |                |          | Males...   | 5                   | 5                     |                                 | 5         |          |  |
| Total, town.....                           | 14                    | 13                  |       |       | 10             | 14       | Females... | 2                   | 2                     |                                 | 2         |          |  |
|  |                       |                     |       |       |                |          | Males...   | 178                 | 167                   | 11                              | 126       | 26       |  |
| <b>TAWAS CITY:</b>                         |                       |                     |       |       |                |          |            |                     |                       |                                 |           |          |  |
| Lumber, shingles and salt.....             | 2                     | 2                   |       |       | 11             |          | Males...   | 115                 | 112                   | 3                               | 63        | 52       |  |
| Planing mill, sash, doors and blinds.....  | 1                     | 1                   |       |       | 10             |          | Males...   | 1                   | 1                     |                                 | 1         |          |  |
| Total, town.....                           | 3                     | 3                   |       |       | 10             | 59       | Females... |                     |                       |                                 |           |          |  |
|  |                       |                     |       |       |                |          | Males...   | 116                 | 113                   | 3                               | 64        | 52       |  |

TABLE No. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 2                | 1       | 1                  | 1              | 1         |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 1                |         | 1                  |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 5                | 6       | 2                  | 3              |           | 6                    |              |                    | 11            |                   |                       |              | 11             |                            |
| 740              | 466     | 495                | 296            | 264       | 171                  | 192          | 1,031              | 152           |                   | 234                   |              | 1,375          |                            |
| 57               | 83      | 33                 | 24             | 20        | 53                   |              | 140                |               |                   | 14                    |              | 140            |                            |
| 886              | 52      |                    |                |           | 50                   | 3            | 49                 |               |                   |                       |              | 52             |                            |
|                  | 619     | 547                | 345            | 291       | 275                  | 258          | 1,204              | 163           |                   | 259                   | 1            | 1,625          |                            |
| 48               | 42      | 4                  | 48             | 25        | 13                   |              |                    |               |                   |                       |              |                | 96                         |
| 1                | 9       |                    |                |           |                      |              | 10                 |               |                   |                       |              |                |                            |
| 31               | 84      |                    |                |           |                      |              | 115                |               |                   |                       |              |                |                            |
| 3                | 3       | 1                  | 2              | 2         | 1                    | 6            |                    |               |                   |                       |              | 6              |                            |
| 4                | 1       | 1                  | 3              |           | 1                    | 5            |                    |               |                   |                       |              | 5              |                            |
| 62               | 316     | 11                 | 51             | 124       | 192                  | 378          |                    |               |                   |                       |              | 378            |                            |
| 36               | 20      | 8                  | 28             | 12        | 8                    | 56           |                    |               |                   |                       |              | 56             |                            |
| 63               | 325     | 11                 | 51             | 124       | 192                  | 378          | 10                 |               |                   |                       |              | 378            |                            |
| 74               | 108     | 10                 | 33             | 14        | 10                   | 67           | 115                |               |                   |                       |              | 67             |                            |
| 7                | 8       | 5                  | 8              |           |                      | 15           |                    |               |                   |                       |              | 15             |                            |
| 5                | 4       | 2                  | 4              | 3         |                      | 9            |                    |               |                   |                       |              | 9              |                            |
| 2                |         |                    | 1              | 3         | 2                    | 4            |                    |               | 2                 |                       | 2            | 4              |                            |
| 2                | 2       | 2                  |                | 2         |                      | 4            |                    |               |                   |                       |              | 4              |                            |
| 10               |         | 5                  | 4              |           |                      | 4            |                    |               |                   |                       |              | 4              |                            |
|                  |         | 5                  | 5              |           |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 36               | 17      | 30                 | 15             | 4         | 4                    |              |                    | 73            |                   |                       |              | 73             |                            |
| 1                | 1       | 1                  |                |           | 1                    | 2            |                    |               |                   |                       |              | 2              |                            |
|                  |         | 5                  | 15             | 23        | 7                    | 50           |                    |               |                   |                       |              | 50             |                            |
|                  | 2       |                    |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                | 2       | 3                  |                | 2         |                      | 5            |                    |               |                   |                       |              | 5              |                            |
| 66               | 2       |                    |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
|                  | 34      | 53                 | 52             | 37        | 14                   | 103          |                    | 73            | 2                 |                       | 2            | 176            |                            |
| 40               | 20      | 75                 | 15             | 10        | 15                   |              |                    | 115           |                   |                       |              | 115            |                            |
| 1                |         | 1                  |                |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 41               | 20      | 76                 | 15             | 10        | 15                   | 1            |                    | 115           |                   |                       |              | 116            |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                         | Number in each Class. |       |       | Sanitary Condition. |          | Hours per Day. |                       | Sex.  | Number of Employés.             |         |          | Nativity. |  |
|--|-----------------------|-------|-------|---------------------|----------|----------------|-----------------------|-------|---------------------------------|---------|----------|-----------|--|
|  | Good.                 | Fair. | Poor. | Hours.              | Minutes. | Total Number.  | Over 16 years of age. |       | Sixteen years of age and under. | Native. | Foreign. |           |  |
| TRAVERSE CITY:                             |                       |       |       |                     |          |                |                       |       |                                 |         |          |           |  |
| Carriages, wagons and sleighs.....         | 2                     | 2     |       | 10                  |          | Males.....     | 11                    | 11    |                                 | 11      |          |           |  |
| Cigars.....                                | 1                     |       | 1     | 10                  |          | { Females..... | 1                     | 1     |                                 | 1       |          |           |  |
| Flour and feed.....                        | 1                     | 1     |       | 10                  |          | { Males.....   | 4                     | 3     | 1                               | 4       |          |           |  |
| Foundries and machine shops.....           | 1                     | 1     |       | 10                  |          | { Males.....   | 10                    | 10    |                                 | 7       |          | 3         |  |
| Lumber, shingles and salt.....             | 1                     | 1     |       | 10                  |          | Males.....     | 1                     | 1     |                                 | 1       |          |           |  |
| Planing mills, sash, doors and blinds..... | 1                     | 1     |       | 10                  |          | Males.....     | 120                   | 118   | 2                               | 14      |          | 106       |  |
|  | 1                     | 1     |       | 10                  |          | Males.....     | 24                    | 24    |                                 | 8       |          | 16        |  |
| Total, town.....                           | 7                     | 6     | 1     | 10                  |          | { Females..... | 1                     | 1     |                                 | 1       |          |           |  |
|  |                       |       |       |                     |          | { Males.....   | 170                   | 167   | 3                               | 45      |          | 125       |  |
| TRENTON:                                   |                       |       |       |                     |          |                |                       |       |                                 |         |          |           |  |
| Flour and feed.....                        | 1                     | 1     |       | 10                  |          | Males.....     | 2                     | 2     |                                 |         |          |           |  |
| Ships.....                                 | 1                     | 1     |       | 10                  |          | Males.....     | 29                    | 29    |                                 | 13      |          | 16        |  |
| Staves and heading.....                    | 1                     | 1     |       | 9                   |          | Males.....     | 50                    | 34    | 16                              | 49      |          | 1         |  |
| Total, town.....                           | 3                     | 3     |       | 9                   | 23       | { Females..... |                       |       |                                 |         |          |           |  |
|  |                       |       |       |                     |          | { Males.....   | 81                    | 65    | 16                              | 62      |          | 17        |  |
| WEST BAY CITY:                             |                       |       |       |                     |          |                |                       |       |                                 |         |          |           |  |
| Breweries.....                             | 1                     |       | 1     | 10                  |          | Males.....     | 6                     | 6     |                                 |         |          | 6         |  |
| Cooperage.....                             | 1                     | 1     |       | 10                  |          | { Females..... | 4                     | 4     |                                 | 4       |          |           |  |
| Flour and feed.....                        | 1                     | 1     |       | 10                  |          | { Males.....   | 21                    | 21    |                                 | 10      |          | 11        |  |
| Lumber, shingles and salt.....             | 1                     | 1     |       | 10                  |          | { Males.....   | 2                     | 2     |                                 |         |          | 2         |  |
| Planing mills, sash, doors and blinds..... | 16                    | 14    |       | 10                  |          | Males.....     | 1,198                 | 1,131 | 67                              | 447     |          | 631       |  |
| Ships.....                                 | 3                     | 3     |       | 10                  |          | Males.....     | 73                    | 43    | 30                              | 53      |          | 20        |  |
|  | 1                     | 1     |       | 10                  |          | Males.....     | 125                   | 125   |                                 | 50      |          | 75        |  |
| Total, city.....                           | 23                    | 20    | 1     | 10                  |          | { Females..... | 4                     | 4     |                                 | 4       |          |           |  |
|  |                       |       |       |                     |          | { Males.....   | 1,423                 | 1,328 | 97                              | 560     |          | 745       |  |
| WHITEHALL:                                 |                       |       |       |                     |          |                |                       |       |                                 |         |          |           |  |
| Boxes.....                                 | 1                     | 1     |       | 10                  |          | Males.....     | 40                    | 30    | 10                              | 22      |          | 18        |  |
| Brick and tile.....                        | 1                     | 1     |       | 10                  |          | Males.....     | 35                    | 35    |                                 | 10      |          | 25        |  |
| Cigars.....                                | 1                     | 1     |       | 10                  |          | Males.....     | 2                     | 2     |                                 |         |          | 2         |  |
| Flour and feed.....                        | 1                     | 1     |       | 10                  |          | Males.....     | 2                     | 2     |                                 |         |          | 2         |  |
| Furniture.....                             | 1                     | 1     |       | 10                  |          | Males.....     | 3                     | 3     |                                 | 2       |          | 1         |  |
| Lumber, shingles and lath.....             | 7                     | 7     |       | 10                  | 11       | Males.....     | 276                   | 268   | 8                               | 100     |          | 175       |  |
| Total, town.....                           | 12                    | 12    |       | 10                  | 11       | { Females..... |                       |       |                                 |         |          |           |  |
|  |                       |       |       |                     |          | { Males.....   | 358                   | 340   | 18                              | 134     |          | 223       |  |
| WHITE PIGEON:                              |                       |       |       |                     |          |                |                       |       |                                 |         |          |           |  |
| Cigars.....                                | 1                     |       | 1     |                     |          | Males.....     | 1                     | 1     |                                 | 1       |          |           |  |
| Flour and feed.....                        | 1                     | 1     |       |                     |          | Males.....     | 2                     | 2     |                                 | 1       |          | 1         |  |
| Total, town.....                           | 2                     | 1     | 1     |                     |          | { Females..... |                       |       |                                 |         |          |           |  |
|  |                       |       |       |                     |          | { Males.....   | 3                     | 3     |                                 | 2       |          | 1         |  |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 5                | 6       | 6                  | 1              | 4         |                      | 11           |                    |               |                   | 4                     |              | 11             |                            |
|                  | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 4       |                    |                | 3         | 1                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 5                | 5       | 3                  | 5              | 2         |                      | 10           |                    |               |                   |                       |              | 10             |                            |
| 1                |         |                    | 1              |           |                      | 1            |                    |               |                   | 1                     |              | 1              |                            |
| 92               | 28      | 54                 | 9              | 44        | 13                   | 120          |                    |               |                   | 4                     |              | 120            |                            |
| 12               | 12      | 10                 | 2              | 12        |                      | 24           |                    |               |                   | 15                    |              | 24             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 115              | 1       |                    |                |           | 1                    | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 55      | 73                 | 18             | 65        | 14                   | 170          |                    |               |                   | 24                    |              | 170            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 27               | 2       | 1                  | 1              |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 18               | 32      | 3                  | 24             | 16        | 2                    |              | 29                 |               |                   |                       |              | 29             |                            |
|                  |         | 3                  | 15             |           | 16                   |              | 50                 |               |                   |                       |              | 50             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 45               | 34      | 7                  | 40             | 16        | 18                   | 2            | 79                 |               |                   |                       |              | 81             |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 3                | 3       |                    | 3              |           |                      | 6            |                    |               |                   |                       |              | 6              |                            |
|                  | 4       |                    |                |           |                      |              | 4                  |               |                   |                       |              | 4              |                            |
| 14               | 7       | 6                  | 8              | 5         | 2                    |              | 21                 |               |                   | 5                     |              | 21             |                            |
| 1                | 1       | 1                  |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 648              | 539     | 250                | 389            | 440       | 112                  | 69           | 487                | 642           |                   | 144                   |              | 1,198          |                            |
| 15               | 58      | 8                  | 7              | 25        | 36                   | 7            | 66                 |               |                   | 8                     | 26           | 73             |                            |
| 100              | 25      | 30                 | 70             | 15        | 10                   |              |                    | 125           |                   |                       | 15           | 125            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 781              | 4       |                    |                |           |                      |              | 4                  |               |                   |                       |              | 4              |                            |
|                  | 633     | 295                | 477            | 486       | 157                  | 84           | 574                | 767           |                   | 157                   | 41           | 1,425          |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 10               | 30      | 10                 |                | 30        |                      | 40           |                    |               |                   | 6                     |              | 40             |                            |
| 25               | 10      | 20                 | 5              | 5         | 5                    | 35           |                    |               |                   | 8                     |              | 35             |                            |
| 1                | 1       | 1                  |                | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 1                | 1       |                    | 1              | 1         |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 3                |         | 1                  | 2              |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 137              | 138     | 90                 | 59             | 78        | 48                   | 16           | 208                | 52            |                   | 66                    |              | 276            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 177              | 180     | 122                | 67             | 115       | 53                   | 98           | 208                | 52            |                   | 80                    |              | 358            |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
|                  | 2       |                    |                | 2         |                      |              |                    | 2             |                   |                       |              | 2              |                            |
|                  |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|                  | 3       |                    |                | 3         |                      | 1            |                    | 2             |                   |                       |              | 3              |                            |

TABLE NO. 27.—Continued.

| Class of Industry.                          | Number in each Class. | Sanitary Condition. |       |       | Hours per Day. |          | Sex.       | Number of Employées. |                       |                                 | Nativity. |          |     |
|---|-----------------------|---------------------|-------|-------|----------------|----------|------------|----------------------|-----------------------|---------------------------------|-----------|----------|-----|
|   |                       | Good.               | Fair. | Poor. | Hours.         | Minutes. |            | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. |     |
| WYANDOTTE:                                  |                       |                     |       |       |                |          |            |                      |                       |                                 |           |          |     |
| Cooperage .....                             | 1                     | 1                   |       |       | 10             |          | Males ..   | 16                   | 16                    |                                 |           |          |     |
| Planing mills, sash, doors and blinds ..... | 1                     | 1                   |       |       | 10             |          | Males ..   | 3                    | 3                     |                                 | 3         |          |     |
| Staves and heading .....                    | 2                     | 1                   |       |       | 10             |          | Males ..   | 180                  | 155                   | 25                              | 30        |          | 15  |
| Ships .....                                 | 1                     | 1                   |       |       | 10             |          | Males ..   | 4                    | 4                     |                                 | 2         |          | 2   |
| Tanneries .....                             | 1                     | 1                   |       |       | 10             |          | Females .. | 12                   | 12                    |                                 | 12        |          |     |
|   |                       |                     |       |       |                |          | Males ..   | 14                   | 14                    |                                 | 13        |          | 1   |
| Total, city .....                           | 6                     | 5                   |       |       | 10             |          | Females .. | 12                   | 12                    |                                 | 12        |          |     |
|   |                       |                     |       |       |                |          | Males ..   | 217                  | 192                   | 25                              | 48        |          | 18  |
| YPSILANTI:                                  |                       |                     |       |       |                |          |            |                      |                       |                                 |           |          |     |
| Agricultural imple-ments .....              | 1                     | 1                   |       |       | 10             |          | Males ..   | 10                   | 10                    |                                 | 5         |          | 5   |
| Breweries .....                             | 2                     |                     | 1     | 1     | 10             | 36       | Males ..   | 15                   | 15                    |                                 | 8         |          | 7   |
| Brooms .....                                | 1                     | 1                   |       |       | 10             |          | Males ..   | 4                    | 4                     |                                 | 4         |          |     |
| Carriages, wagons and sleighs .....         | 4                     | 3                   | 1     |       | 10             |          | Males ..   | 18                   | 18                    |                                 | 16        |          | 2   |
| Cigars .....                                | 2                     | 2                   |       |       | 10             |          | Males ..   | 12                   | 11                    | 1                               | 8         |          | 4   |
| Confectionery .....                         | 1                     | 1                   |       |       | 10             |          | Males ..   | 1                    | 1                     |                                 |           |          | 1   |
| Cooperage .....                             | 4                     | 4                   |       |       | 10             |          | Males ..   | 16                   | 16                    |                                 | 13        |          | 3   |
| Flour and feed .....                        | 2                     | 2                   |       |       | 12             |          | Males ..   | 14                   | 14                    |                                 | 8         |          | 6   |
| Foundries and machine shops .....           | 2                     | 2                   |       |       | 10             |          | Males ..   | 29                   | 29                    |                                 | 23        |          | 6   |
| Furniture .....                             | 1                     | 1                   |       |       | 10             |          | Males ..   | 1                    | 1                     |                                 | 1         |          |     |
| Paper .....                                 | 3                     | 2                   |       |       | 11             | 20       | Females .. | 55                   | 54                    | 1                               | 48        |          | 6   |
| Planing mills, sash, doors and blinds ..... | 4                     | 4                   |       |       | 10             |          | Males ..   | 109                  | 109                   |                                 | 77        |          | 31  |
| Pop .....                                   | 1                     | 1                   |       |       | 10             |          | Males ..   | 25                   | 24                    | 1                               | 23        |          | 2   |
| Pulp .....                                  | 1                     | 1                   |       |       | 12             |          | Males ..   | 1                    | 1                     |                                 | 1         |          |     |
| Pumps .....                                 | 1                     | 1                   |       |       | 10             |          | Males ..   | 10                   | 10                    |                                 | 8         |          | 2   |
| Tanneries .....                             | 1                     | 1                   |       | 1     | 10             |          | Males ..   | 1                    | 1                     |                                 | 1         |          |     |
| Veneers and panels .....                    | 1                     | 1                   |       |       | 10             |          | Males ..   | 2                    | 2                     |                                 | 1         |          | 1   |
| Woolens .....                               | 1                     | 1                   |       |       | 10             |          | Males ..   | 3                    | 3                     |                                 | 3         |          |     |
|   |                       |                     |       |       |                |          | Females .. | 70                   | 60                    | 10                              | 65        |          | 5   |
|   |                       |                     |       |       |                |          | Males ..   | 19                   | 16                    | 3                               | 15        |          | 4   |
| Total, city .....                           | 33                    | 28                  | 2     | 2     | 10             | 36       | Females .. | 125                  | 114                   | 11                              | 113       |          | 11  |
|   |                       |                     |       |       |                |          | Males ..   | 290                  | 285                   | 5                               | 215       |          | 74  |
| ZILWAUKEE:                                  |                       |                     |       |       |                |          |            |                      |                       |                                 |           |          |     |
| Lumber, shingles and salt .....             | 4                     | 2                   | 2     |       | 10             | 56       | Females .. |                      |                       |                                 |           |          |     |
|   |                       |                     |       |       |                |          | Males ..   | 350                  | 326                   | 24                              | 85        |          | 149 |

TABLE NO. 27.—Continued.

| Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |              |                |                            |
|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|----------------|----------------------------|
| Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| 15               | 1       | 5                  | 10             | 1         |                      |              | 16                 |               |                   |                       |              | 16             |                            |
| 3                |         | 1                  | 2              |           |                      | 3            |                    |               |                   |                       |              | 3              |                            |
| 11               | 34      | 5                  | 6              | 14        | 20                   |              | 180                |               |                   |                       |              | 180            |                            |
| 2                | 2       | 2                  |                | 2         |                      |              |                    |               | 4                 |                       |              | 4              |                            |
|                  | 12      |                    |                |           | 12                   |              | 12                 |               |                   |                       |              | 12             |                            |
| 9                | 5       | 3                  | 6              |           | 5                    |              | 14                 |               |                   |                       |              | 14             |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 40               | 12      |                    |                |           | 12                   |              | 12                 |               |                   |                       |              | 12             |                            |
|                  | 42      | 16                 | 24             | 17        | 25                   | 3            | 210                |               | 4                 |                       |              | 217            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 5                | 5       | 3                  | 2              | 2         | 3                    | 10           |                    |               |                   | 2                     |              | 10             |                            |
| 11               | 4       | 7                  | 3              | 2         | 3                    | 15           |                    |               |                   |                       |              | 15             |                            |
|                  | 4       |                    |                | 1         | 3                    | 4            |                    |               |                   |                       |              | 4              |                            |
| 10               | 7       | 6                  | 4              | 5         | 3                    | 18           |                    |               |                   | 1                     |              | 18             |                            |
| 4                | 8       |                    | 4              | 3         | 5                    | 12           |                    |               |                   |                       |              | 12             |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 10               | 6       | 8                  | 2              | 4         | 2                    | 16           |                    |               |                   | 1                     |              | 16             |                            |
| 10               | 4       | 5                  | 6              |           | 3                    | 14           |                    |               |                   |                       |              | 14             |                            |
| 15               | 14      | 10                 | 8              |           | 11                   | 29           |                    |               |                   | 5                     |              | 29             |                            |
| 1                |         |                    | 1              |           |                      | 1            |                    |               |                   | 1                     |              | 1              |                            |
| 7                | 47      |                    | 16             | 2         | 36                   | 55           |                    |               |                   |                       |              | 55             |                            |
| 78               | 30      | 50                 | 32             | 14        | 12                   |              |                    | 100           |                   |                       |              | 109            |                            |
| 20               | 5       | 12                 | 9              |           | 4                    | 25           |                    |               |                   |                       |              | 25             |                            |
|                  | 1       |                    |                | 1         |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 6                | 4       | 4                  | 2              | 3         | 1                    |              |                    | 10            |                   |                       |              | 10             |                            |
| 1                |         |                    | 1              |           |                      | 1            |                    |               |                   |                       |              | 1              |                            |
| 2                |         |                    | 2              |           |                      | 2            |                    |               |                   |                       |              | 2              |                            |
| 2                | 1       | 2                  |                |           | 1                    | 3            |                    |               |                   |                       |              | 3              |                            |
| 6                | 64      |                    | 1              |           | 60                   | 70           |                    |               |                   |                       |              | 70             |                            |
| 6                | 13      | 2                  | 4              | 4         | 8                    | 19           |                    |               |                   |                       |              | 19             |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 13               | 111     |                    | 17             | 2         | 96                   | 125          |                    |               |                   |                       |              | 125            |                            |
| 181              | 107     | 109                | 80             | 40        | 59                   | 171          |                    | 119           |                   | 10                    |              | 290            |                            |
| <hr/>            |         |                    |                |           |                      |              |                    |               |                   |                       |              |                |                            |
| 248              | 102     | 132                | 116            | 57        | 45                   | 9            | 341                |               |                   | 146                   |              | 350            |                            |

Table No. 28, which follows, is the same as No. 27, except that in it we have given the totals only of the canvass of each city or town, so that the reader may more readily arrive at the statistics of any given place than could be done from the preceding table. It has been our desire to present to the public the result of our investigations in as concise a form as possible consistent with an easy understanding of the tables

By tables Nos. 27 and 28 it will be seen that the sanitary condition of but 1,111 establishments is given out of a total number reported of 1,186. In some cases these omissions may have been the result of carelessness on the part of the canvasser, while in others it is possible the canvasser may have felt that if he gave the sanitary condition as it appeared to him, his report might in some way reach the owners of the establishment and he be blamed. Of the number shown the result is certainly worthy of attention. Less than one per cent of the whole number is reported "*poor*," and less than five per cent as only "*fair*," while 1,050 establishments out of a total of 1,186 are reported as in "*good*" sanitary condition.

The total number of employés given is 41,660, of these 2,315 were sixteen years of age or under. There were 37,561 males and 4,099 females. Of the males, 18,562 were married and 14,482 were single. Of the females, 407 were married and 3,341 were single. Of the males who owned their homes there were 8,159, or about 44 per cent of those reported as married. In the payment of wages to males, 12,273 are reported as being paid weekly, 14,507 were paid semi-monthly, 11,361 were paid monthly, while but 109 are reported as irregularly paid. Seventy per cent of the males reported under the head of time when paid were paid semi-monthly or oftener. While this showing is much better than has been often stated by the press and from the rostrum, it will not reach that stage of perfect convenience to the wage-earner until a canvass shall show all are paid weekly. Of 41,033 employés reported, 40,658, or over 99 per cent, were paid wholly in cash, while 375, or less than 1 per cent, were paid partly in store orders. This small number, reported as they are from eight different towns, would indicate that the odious "*store order*" system is fast becoming a thing of the past in our State. The number of apprentices reported is 675, of whom 46 were females.

The average hours worked each day in fifty towns reporting and showing 41,655 employés was ten hours and eight minutes.

The report is especially interesting in its showing of the nativity of the employés. Of the males reported 18,127 were of foreign birth, 14,505 were American born, while the nativity of 4,929 was not given. Of the females reported, but 727 are of foreign birth, 2,529 are native Americans, while the nativity of 843 was not given. From this showing it would certainly seem that young men of foreign birth are fast taking the place of native Americans in our manufacturing establishments, and that it is a fair phase of the situation

in the State is best proven by the fact that this canvass covers fifty-two cities and towns in thirty counties, scattered over all parts of the State.

In examining this and other tables showing results of the work of special canvassers, the reader must bear in mind the fact that while a total of 41,660 employés is reported, the civil condition, nativity, etc., could not in all cases be ascertained, so that the totals of the different columns do not always agree.

Table No. 29, which immediately follows No. 28, is condensed from No. 27, giving the same matter by occupations or different classes of industry and while possibly not so interesting to the reader residing in any of the cities or towns canvassed as the preceding tables, will, when taken in connection with the tables giving specific wages, be appreciated by the student of economic questions.

Table No. 30 shows the wages paid to male and female employés in the manufacturing industries of the 52 cities and towns given on page 219. Out of a total number of 37,561 males employed the specific wages of but 34,736 are given. One hundred and twenty-nine are reported as working by the "piece" or on commission, and the wages of 2,696 were not given. The canvassers' reports do not show that this omission was intentional, but resulted from errors in putting down wages in such a manner as to be unintelligible or were accidentally left out.

Of the female employés, the wages of 3,577 are given and 204 reported as working by the "piece." The wages of 318 are not given.

Table No. 31 gives the total number working for each given rate of wages and the average wages paid in the whole district canvassed.

Table No. 32 gives the wages of male and female employés 16 years of age and under in the manufacturing industries, the number working for each given rate of wages and the average wages paid.



TABLE No. 28.—Showing the totals by Cities and Towns of the result of special Canvases of Manufacturing Industries.

| Cities, Towns and Counties.    | Number in each Place. |       |       | Sanitary Condition. |                       | Hrs per Day. | Sex.                      | Number of Employes.       |                           |                       | Nativity.                 |                         | Civil Condition.        |                           | Number of Employees  |                       |                       |                         |                           |                         |                         |                   |                      |                            |                           |                 |
|--------------------------------|-----------------------|-------|-------|---------------------|-----------------------|--------------|---------------------------|---------------------------|---------------------------|-----------------------|---------------------------|-------------------------|-------------------------|---------------------------|----------------------|-----------------------|-----------------------|-------------------------|---------------------------|-------------------------|-------------------------|-------------------|----------------------|----------------------------|---------------------------|-----------------|
|                                | Good.                 | Fair. | Poor. | Total Num.          | Over 16 years of age. |              |                           | Sixteen years and under.  | Native.                   | Foreign.              | Married.                  | Single.                 | Owning Homes.           | Renting Homes.            | Boarding.            | Living with Parents.  | Paid Weekly.          | Paid Semi-monthly.      | Paid Monthly.             | Paid Irregularly.       | Having money in Bank.   | Apprentices.      | Paid all Cash.       | Paid part in Store Orders. |                           |                 |
|                                |                       |       |       |                     |                       |              |                           |                           |                           |                       |                           |                         |                         |                           |                      |                       |                       |                         |                           |                         |                         |                   |                      |                            |                           |                 |
| Total                          | 1,186                 | 1,050 | 51    | 10                  | 8+                    |              | Total<br>Females<br>Males | 41,600<br>4,099<br>37,501 | 39,345<br>3,780<br>35,565 | 2,315<br>319<br>1,996 | 17,034<br>2,520<br>14,505 | 18,854<br>727<br>18,127 | 18,969<br>407<br>14,482 | 17,823<br>3,341<br>14,482 | 8,183<br>24<br>8,159 | 9,374<br>221<br>9,153 | 9,339<br>462<br>8,877 | 7,719<br>2,206<br>5,513 | 15,316<br>3,043<br>12,273 | 15,293<br>756<br>14,507 | 11,649<br>288<br>11,361 | 109<br>258<br>109 | 2,598<br>57<br>2,511 | 675<br>46<br>629           | 40,658<br>4,073<br>36,585 | 375<br>5<br>370 |
| Adrian, Lenawee Co.            | 85                    | 32    | 2     | 10                  | 30                    |              | Females<br>Males          | 185<br>623                | 180<br>589                | 5<br>34               | 124<br>386                | 61<br>237               | 62<br>407               | 123<br>191                | 2<br>157             | 24<br>230             | 63<br>142             | 96<br>121               | 85<br>372                 | 100<br>236              | 100<br>236              | 45<br>109         | 22<br>623            | 185<br>623                 |                           |                 |
| Albion, Calhoun Co.            | 9                     | 7     | 1     | 9                   | 38                    |              | Females<br>Males          | 203<br>203                | 203<br>203                |                       | 99<br>99                  | 17<br>17                | 145<br>145              | 25<br>25                  | 67<br>67             | 40<br>40              | 16<br>16              | 6<br>6                  | 203<br>203                |                         |                         | 100<br>100        | 45<br>45             | 185<br>185                 |                           |                 |
| Alpena, Alpena Co.             | 20                    | 17    |       | 10                  | 57                    |              | Females<br>Males          | 735<br>735                | 708<br>708                | 27<br>27              | 168<br>168                | 561<br>561              | 492<br>492              | 237<br>237                | 248<br>248           | 233<br>233            | 199<br>199            | 30<br>30                | 48<br>48                  | 586<br>586              | 89<br>89                | 6<br>6            |                      | 544<br>544                 | 179<br>179                |                 |
| Ann Arbor, Washtenaw Co.       | 20                    | 19    |       | 10                  | 10                    |              | Females<br>Males          | 192<br>192                | 177<br>177                | 15<br>15              | 101<br>101                | 48<br>48                | 77<br>77                | 72<br>72                  | 46<br>46             | 52<br>52              | 36<br>36              | 51<br>51                | 125<br>125                | 18<br>18                | 49<br>49                | 2<br>2            | 162<br>162           |                            |                           |                 |
| Au Sable and Oscoda, Iosco Co. | 11                    | 11    |       | 10                  | 26                    |              | Females<br>Males          | 914<br>914                | 862<br>862                | 52<br>52              | 306<br>306                | 300<br>300              | 224<br>224              | 173<br>173                | 250<br>250           | 287<br>287            | 283<br>283            | 95<br>95                | 249<br>249                | 272<br>272              | 363<br>363              | 112<br>112        | 914<br>914           |                            |                           |                 |
| Bay City, Bay Co.              | 53                    | 51    | 2     | 10                  | 6                     |              | Females<br>Males          | 2,431<br>2,431            | 2,248<br>2,248            | 183<br>183            | 915<br>915                | 1,434<br>1,434          | 1,304<br>1,304          | 1,084<br>1,084            | 632<br>632           | 794<br>794            | 982<br>982            | 230<br>230              | 142<br>142                | 1,594<br>1,594          | 688<br>688              | 312<br>312        | 6<br>6               | 2,411<br>2,411             | 2<br>2                    |                 |
| Big Rapids, Mecosta Co.        | 16                    | 14    | 1     | 10                  | 3                     |              | Females<br>Males          | 434<br>434                | 406<br>406                | 28<br>28              | 277<br>277                | 142<br>142              | 280<br>280              | 158<br>158                | 85<br>85             | 69<br>69              | 54<br>54              | 62<br>62                | 127<br>127                | 117<br>117              | 190<br>190              | 20<br>20          | 2<br>2               | 434<br>434                 | 1<br>1                    |                 |
| Blissfield, Lenawee Co.        | 5                     | 5     |       | 9                   | 38                    |              | Females<br>Males          | 13<br>13                  | 13<br>13                  |                       | 12<br>12                  | 1<br>1                  | 8<br>8                  | 5<br>5                    | 2<br>2               | 7<br>7                | 3<br>3                | 1<br>1                  | 13<br>13                  |                         |                         |                   | 8<br>8               |                            |                           |                 |
| Bronson, Branch Co.            | 7                     | 5     | 2     | 10                  | 16                    |              | Females<br>Males          | 15<br>15                  | 15<br>15                  |                       | 14<br>14                  | 1<br>1                  | 9<br>9                  | 6<br>6                    | 6<br>6               | 3<br>3                | 3<br>3                | 3<br>3                  | 15<br>15                  |                         |                         |                   |                      | 12<br>12                   | 3<br>3                    |                 |
| Buchanan, Berrien Co.          | 10                    | 8     |       | 10                  |                       |              | Females<br>Males          | 158<br>158                | 158<br>158                |                       | 150<br>150                | 8<br>8                  | 89<br>89                | 60<br>60                  | 38<br>38             | 49<br>49              | 71<br>71              |                         | 99<br>99                  | 33<br>33                | 29<br>29                | 6<br>6            |                      | 158<br>158                 |                           |                 |
| Coldwater, Branch Co.          | 23                    | 16    | 5     | 10                  | 2                     |              | Females<br>Males          | 71<br>280                 | 67<br>268                 | 4<br>12               | 69<br>247                 | 2<br>33                 | 26<br>163               | 45<br>103                 | 82<br>82             | 19<br>81              | 12<br>54              | 40<br>63                | 71<br>276                 |                         |                         | 6<br>6            | 2<br>2               | 68<br>248                  | 5<br>84                   |                 |

|                              | 3   | 1   | 1  | 1  | 10 | { Females.<br>Males } | 1<br>11               | 1<br>11        | .....<br>9 | 1<br>2         | 6            | 1<br>5       | 1<br>4       | 2<br>4       | 1<br>11        | .....<br>1   | .....<br>11 |           |                |              |
|------------------------------|-----|-----|----|----|----|-----------------------|-----------------------|----------------|------------|----------------|--------------|--------------|--------------|--------------|----------------|--------------|-------------|-----------|----------------|--------------|
| Cornwall,<br>Shlawassee Co.  |     |     |    |    |    |                       |                       |                |            |                |              |              |              |              |                |              |             |           |                |              |
| Detroit,<br>Wayne Co.        | 381 | 315 | 9  | 4  | 9  | 57                    | { Females.<br>Males } | 2,901<br>8,655 | 199<br>416 | 1,115<br>2,785 | 439<br>3,806 | 117<br>3,310 | 25<br>1,952  | 119<br>1,223 | 1,071<br>4,148 | 131<br>1,255 | 7<br>447    | 24<br>342 | 2,933<br>8,527 |              |
| Dowagiac,<br>Cass Co.        | 11  | 11  | .. | 10 | 5  | { Females<br>Males }  | 1<br>108              | 1<br>166       | 2<br>147   | 1<br>20        | 124<br>44    | 1<br>58      | 56<br>40     | 13           | 38             | 130          | 1           | 168       |                |              |
| East Saginaw,<br>Saginaw Co. | 67  | 60  | 6  | .. | 10 | 46                    | { Females.<br>Males } | 2<br>2,890     | 1<br>2,768 | 1<br>1,426     | 1<br>1,410   | 2<br>1,672   | 777          | 841          | 426            | 1,924        | 380         | 2,871     | 16             |              |
| East Tawas,<br>Iosco Co.     | 9   | 7   | .. | 10 | 53 | { Females.<br>Males } | 343                   | 328            | 15         | 120            | 137          | 115          | 142          | 100          | 31             | 28           | 11          | 343       |                |              |
| Escanaba,<br>Delta Co.       | 1   | 1   | .. | .. | .. | { Females.<br>Males } | 2<br>2                | 2<br>2         | .....      | 2<br>1         | 1<br>1       | 1<br>1       | 1            | 1            | .....          | 2            | 1           | 2         |                |              |
| Franklin,<br>Houghton Co.    | 4   | 4   | .. | 10 | .. | { Females.<br>Males } | 104                   | 104            | .....      | 61             | 43           | 48           | 56           | 23           | 27             | 51           | .....       | 104       |                |              |
| Grand Haven,<br>Ottawa Co.   | 14  | 14  | .. | 10 | 37 | { Females<br>Males }  | 64<br>519             | 30<br>453      | 34<br>180  | 29<br>332      | 63<br>230    | 279          | 148          | 85           | 1              | 36           | 4<br>35     | 64<br>453 |                |              |
| Grand Rapids,<br>Kent Co.    | 100 | 93  | .. | 10 | 40 | { Females.<br>Males } | 225<br>3,412          | 213<br>3,086   | 12<br>336  | 164<br>1,521   | 56<br>1,522  | 41<br>1,468  | 183<br>1,763 | 36<br>719    | 140<br>1,152   | 212<br>632   | 12<br>1,915 | 4<br>962  | 12<br>3,410    |              |
| Hancock,<br>Houghton Co.     | 3   | 3   | .. | 10 | .. | { Females<br>Males }  | 126                   | 113            | 13         | 13             | 33           | 25           | 21           | 6            | 25             | 10           | 1           | 126       |                |              |
| Hanover,<br>Jackson Co.      | 1   | 1   | .. | 10 | .. | { Females.<br>Males } | 2<br>2                | 2<br>2         | .....      | 2<br>2         | .....        | .....        | .....        | 2            | .....          | .....        | 2           | 2         |                |              |
| Harbor Springs,<br>Emmet Co. | 4   | 3   | .. | 10 | .. | { Females.<br>Males } | 11<br>22              | 9<br>19        | 2<br>3     | 11<br>22       | 11<br>12     | 10<br>10     | 2<br>15      | 2<br>2       | 11<br>3        | 17<br>5      | 11<br>5     | 11<br>17  | 5              |              |
| Hillsdale,<br>Hillsdale Co.  | 16  | 14  | 2  | 10 | 20 | { Females<br>Males }  | 3<br>164              | 3<br>157       | 3<br>7     | 3<br>142       | 1<br>22      | 2<br>105     | 59<br>49     | 50           | 3<br>13        | 3<br>164     | 3<br>14     | 3<br>164  |                |              |
| Holland,<br>Ottawa Co.       | 13  | 13  | .. | 11 | 5  | { Females.<br>Males } | 274                   | 267            | 7          | 110            | 164          | 159          | 115          | 98           | 65             | 34           | 77          | 41        | 191            | 274          |
| Houghton,<br>Houghton Co.    | 3   | 3   | .. | 9  | 36 | { Females<br>Males }  | 4,065                 | 3,664          | 11         | 420            | 3,586        | 2,430        | 1,375        | 850          | 1,416          | 1,216        | 533         | 5         | 4,000          | 4,005        |
| Howell,<br>Livingston Co.    | 5   | 5   | .. | 10 | 8  | { Females<br>Males }  | 39                    | 38             | 1          | 31             | 8            | 19           | 20           | 11           | 7              | 11           | 8           | 31        | 2              | 39           |
| Jackson,<br>Jackson Co.      | 46  | 44  | 1  | 10 | 1  | { Females<br>Males }  | 452<br>1,158          | 431<br>1,088   | 21<br>70   | 339<br>564     | 24<br>201    | 42<br>615    | 405<br>509   | 11<br>205    | 87<br>213      | 192<br>1,040 | 444<br>31   | 5<br>80   | 10<br>15       | 449<br>1,155 |
| Lakeside,<br>Muskegon Co.    | 8   | 6   | .. | 10 | 14 | { Females.<br>Males } | 431                   | 414            | 17         | 119            | 181          | 105          | 151          | 95           | 56             | 164          | 43          | 186       | 82             | 431          |

TABLE NO. 38.—Continued.

| Cities, Towns<br>and<br>Counties.    | Number in each Place. | Sanitary<br>Condition. |                | Hrs<br>per<br>Day.         | Sex.        | Number<br>of<br>Employees. |                          |                                | Nativity. |          | Civil<br>Condition. |         | Number of Employees |                   |           |                         |              |                        |                  |                        |                                 |              |                |                               |  |
|--------------------------------------|-----------------------|------------------------|----------------|----------------------------|-------------|----------------------------|--------------------------|--------------------------------|-----------|----------|---------------------|---------|---------------------|-------------------|-----------|-------------------------|--------------|------------------------|------------------|------------------------|---------------------------------|--------------|----------------|-------------------------------|--|
|                                      |                       | Good.                  | Fair.<br>Poor. |                            |             | Total Num-<br>ber.         | Over 16 years<br>of age. | Sixteen years<br>and<br>under. | Native.   | Foreign. | Married.            | Single. | Owning<br>Homes.    | Renting<br>Homes. | Boarding. | Living with<br>Parents. | Paid weekly. | Paid Semi-<br>monthly. | Paid<br>Monthly. | Paid Irregu-<br>larly. | Hav-<br>ing mon-<br>ey in Bank. | Apprentices. | Paid all Cash. | Paid part in<br>Store Orders. |  |
|                                      |                       |                        |                |                            |             |                            |                          |                                |           |          |                     |         |                     |                   |           |                         |              |                        |                  |                        |                                 |              |                |                               |  |
| Lansing,<br>Ingham Co. . . . .       | 30                    | 28                     | 10 22          | Females<br>Males . . . . . | 4<br>560    | 551                        | 9                        | 1                              | 387       | 163      | 2                   | 107     | 123                 | 190               | 142       | 38                      | 1            | 243                    | 285              | 7                      | 84                              | 11           | 537            | 16                            |  |
| Lowell,<br>Kent Co. . . . .          | 10                    | 10                     | 10 28          | Females<br>Males . . . . . | 1<br>115    | 113                        | 2                        | 1                              | 102       | 13       | 76                  | 39      | 27                  | 39                | 27        | 29                      | 20           | 42                     | 1                | 73                     | 3                               | 4            | 115            | 1                             |  |
| Mason,<br>Ingham Co. . . . .         | 9                     | 8                      | 10 2           | Females<br>Males . . . . . | 8<br>94     | 85                         | 9                        | 2                              | 8         | 92       | 2                   | 59      | 35                  | 24                | 31        | 23                      | 15           | 94                     | 1                | 8                      | 8                               | 94           | 8              |                               |  |
| Midland,<br>Midland Co. . . . .      | 6                     | 5                      | 10 40          | Females<br>Males . . . . . | 3<br>226    | 215                        | 11                       | 3                              | 160       | 64       | 102                 | 123     | 58                  | 62                | 76        | 30                      | 3            | 4                      | 222              | 3                      | 3                               | 8            | 194            | 82                            |  |
| Monroe,<br>Monroe Co. . . . .        | 19                    | 19                     | 10 33          | Females<br>Males . . . . . | 4<br>179    | 168                        | 11                       | 2                              | 134       | 43       | 92                  | 85      | 48                  | 44                | 44        | 36                      | 4            | 131                    | 21               | 27                     | 9                               | 4            | 179            | 4                             |  |
| Montague,<br>Muskegon Co. }          | 8                     | 7                      | 10 4           | Females<br>Males . . . . . | 25<br>421   | 15<br>379                  | 10<br>42                 | 4                              | 133       | 136      | 160                 | 135     | 83                  | 110               | 49        | 25                      | 25           | 274                    | 182              | 106                    | 106                             | 25           | 421            | 25                            |  |
| Muskegon,<br>Muskegon Co. }          | 36                    | 28                     | 2 2 10 13      | Females<br>Males . . . . . | 23<br>1,780 | 23<br>1,678                | 102                      | 12                             | 607       | 639      | 406                 | 425     | 187                 | 4                 | 8         | 9                       | 23           | 407                    | 1,129            | 244                    | 48                              | 57           | 1,542          | 23                            |  |
| Niles,<br>Berrien Co. . . . .        | 15                    | 15                     | 10 14          | Females<br>Males . . . . . | 138<br>264  | 136<br>259                 | 5                        | 138                            | 190       | 74       | 212                 | 59      | 30                  | 107               | 29        | 38                      | 73           | 1                      | 135              | 31                     | 56                              | 138          | 264            | 138                           |  |
| Port Huron,<br>St. Clair Co. . . . . | 20                    | 17                     | 1 10 23        | Females<br>Males . . . . . | 446<br>228  | 435                        | 11                       | 228                            | 236       | 236      | 236                 | 96      | 116                 | 174               | 118       | 35                      | 446          | 42                     | 8                | 446                    | 42                              | 8            | 446            | 446                           |  |
| Reed City,<br>Osceola Co. . . . .    | 11                    | 7                      | 4 10 58        | Females<br>Males . . . . . | 69<br>2     | 61                         | 8                        | 33                             | 36        | 37       | 32                  | 23      | 15                  | 16                | 15        | 69                      | 2            | 2                      | 69               | 2                      | 4                               | 69           | 2              |                               |  |
| Saginaw,<br>Saginaw Co. . . . .      | 32                    | 28                     | 5 10 20        | Females<br>Males . . . . . | 52<br>1,625 | 44<br>1,488                | 137                      | 46                             | 594       | 880      | 836                 | 619     | 1,547               | 345               | 291       | 275                     | 50           | 258                    | 49               | 103                    | 259                             | 1            | 52             | 1,625                         |  |
| Schoolcraft,<br>Houghton Co. }       | 1                     | 1                      | 10             | Females<br>Males . . . . . | 90<br>0     | 86                         | 4                        | 26                             | 65        | 48       | 42                  | 4       | 48                  | 25                | 13        | 13                      | 13           | 378                    | 10               | 115                    | 0                               | 0            | 378            | 90                            |  |
| St. Joseph,<br>Berrien Co. . . . .   | 4                     | 3                      | 1 10 43        | Females<br>Males . . . . . | 388<br>182  | 377<br>165                 | 11<br>17                 | 77                             | 301       | 77       | 63                  | 325     | 10                  | 51                | 124       | 182                     | 10           | 378                    | 10               | 115                    | 0                               | 0            | 378            | 90                            |  |

|  |    |    |    |    |                   |                   |                   |            |            |         |            |           |            |           |          |         |           |            |     |     |     |            |       |
|--|----|----|----|----|-------------------|-------------------|-------------------|------------|------------|---------|------------|-----------|------------|-----------|----------|---------|-----------|------------|-----|-----|-----|------------|-------|
| St. Louis,<br>Gratiot Co. . . . .        | 14 | 13 | 10 | 14 | Females.<br>Males | 2<br>178          | 2<br>167          | 11         | 2<br>126   | 28      | 66         | 2<br>34   | 53         | 52        | 37       | 1       | 14        | 103        | 2   | 73  | 2   | 2          | 176   |
| Tawas City,<br>Iosco Co. . . . .         | 3  | 3  | 10 | 59 | Females.<br>Males | 116               | 113               | 3          | 64         | 52      | 41         | 20        | 76         | 15        | 10       | 15      | 1         | 115        |     |     |     | 116        |       |
| Traverse City,<br>Gd Trav'ce Co. . . . . | 7  | 6  | 1  | 10 | Females.<br>Males | 170               | 167               | 3          | 45         | 125     | 115        | 1         | 55         | 73        | 18       | 65      | 14        | 170        |     | 24  |     | 170        |       |
| Trenton,<br>Wayne Co. . . . .            | 3  | 3  | 9  | 23 | Females.<br>Males | 81                | 65                | 16         | 62         | 17      | 45         | 34        | 7          | 40        | 16       | 18      | 2         | 79         |     |     |     | 81         |       |
| West Bay City,<br>Bay Co. . . . .        | 23 | 20 | 1  | 10 | Females<br>Males  | 4<br>1,425        | 4<br>1,328        | 97         | 4<br>560   | 745     | 781        | 4<br>633  | 265        | 477       | 496      | 157     | 84        | 574        | 4   | 767 | 157 | 41         | 1,425 |
| Whitehall,<br>Muskegon Co. . . . .       | 12 | 12 | 10 | 11 | Females<br>Males  | 358               | 340               | 18         | 134        | 223     | 177        | 180       | 122        | 67        | 115      | 53      | 98        | 208        | 52  | 80  |     | 358        |       |
| White Pigeon,<br>St. Joseph Co. . . . .  | 2  | 1  | 1  |    | Females<br>Males  | 3                 | 3                 |            | 2          | 1       |            | 3         |            |           | 3        |         | 1         |            | 2   |     |     | 3          |       |
| Wyandotte,<br>Wayne Co. . . . .          | 6  | 5  | 10 |    | Females<br>Males  | 12<br>217         | 12<br>192         | 25         | 48         | 18      | 40         | 42        | 16         | 24        | 17       | 25      | 12        | 3          | 210 | 4   |     | 12<br>217  |       |
| Ypsilanti,<br>Washtenaw Co. . . . .      | 33 | 28 | 2  | 2  | 10                | 36                | Females.<br>Males | 125<br>290 | 113<br>285 | 11<br>5 | 113<br>215 | 111<br>74 | 107<br>181 | 100<br>80 | 96<br>40 | 2<br>59 | 96<br>171 | 125<br>171 | 119 | 10  |     | 125<br>290 |       |
| Zilwaukee,<br>Saginaw Co. . . . .        | 4  | 2  | 2  | 10 | 56                | Females.<br>Males | 350               | 326        | 24         | 85      | 149        | 248       | 102        | 132       | 116      | 57      | 45        | 9          | 341 | 146 |     | 350        |       |

TABLE NO. 28.—Showing the result of Canvass of the Manufacturing Industries of the 53 Cities, Villages and Towns named on page 219, by Industries; Number of each class of Industry reported; Sanitary condition; Hours per day's work; Total Number of Male and Female Employees; Number over 16 years of age; Number 16 years of age and under; Nativity; Civil condition; Number owning and renting homes; Number boarding; Number living with parents; Number paid weekly, semi-monthly, monthly and irregularly; Number having savings in bank; Number of Apprentices in each Industry; Number paid all Cash and Number paid part in Store Orders.

| Class of Industry.               | Number in each Class. | Sanitary Condition. |       | Hrs per Day. | Sex. | Number of Employees.                     |                           |                           | Nativity.             |                           | Civil Condition.        |                         | Number of Employees     |                      |                       |                       |                         |                           |                         |                         |                   |                      |                       |                           |                 |                            |
|----------------------------------|-----------------------|---------------------|-------|--------------|------|--|---------------------------|---------------------------|-----------------------|---------------------------|-------------------------|-------------------------|-------------------------|----------------------|-----------------------|-----------------------|-------------------------|---------------------------|-------------------------|-------------------------|-------------------|----------------------|-----------------------|---------------------------|-----------------|----------------------------|
|                                  |                       | Good.               | Fair. |              |      | Poor.                                    | Minutes.                  | Total Number.             | Over 16 years of age. | Sixteen years and under.  | Native.                 | Foreign.                | Married.                | Single.              | Owning Homes.         | Renting Homes.        | Boarding.               | Living with Parents.      | Paid Weekly.            | Paid Semi-monthly.      | Paid Monthly.     | Paid Irregularly.    | Having money in Bank. | Apprentices.              | Paid all Cash.  | Paid part in Store Orders. |
|                                  |                       |                     |       |              |      |  |                           |                           |                       |                           |                         |                         |                         |                      |                       |                       |                         |                           |                         |                         |                   |                      |                       |                           |                 |                            |
| Total                            | 1,186                 | 1,050               | 51    | 10           | 8    | Total.....<br>Females.....<br>Males..... | 41,680<br>4,099<br>37,581 | 39,345<br>3,780<br>35,565 | 2,315<br>319<br>1,996 | 17,034<br>2,529<br>14,505 | 18,854<br>727<br>18,127 | 18,968<br>407<br>18,562 | 17,823<br>407<br>14,482 | 8,183<br>24<br>8,159 | 9,374<br>221<br>9,153 | 9,349<br>402<br>8,877 | 7,719<br>2,296<br>5,513 | 15,293<br>3,043<br>12,273 | 15,293<br>756<br>14,507 | 11,649<br>288<br>11,361 | 100<br>100<br>100 | 2,508<br>57<br>2,511 | 675<br>46<br>629      | 40,658<br>4,073<br>36,585 | 375<br>5<br>370 |                            |
| Agricultural implements.....     | 9                     | 8                   |       | 9:37         |      | Males                                    | 307                       | 305                       | 2                     | 186                       | 121                     | 171                     | 136                     | 108                  | 58                    | 52                    | 25                      | 211                       | 30                      |                         |                   | 2                    |                       | 241                       |                 |                            |
| Artificial limbs                 | 2                     | 2                   |       | 10           |      | Males                                    | 7                         | 7                         |                       | 2                         |                         | 4                       | 3                       |                      | 4                     | 1                     | 2                       | 7                         |                         |                         |                   | 1                    |                       | 7                         |                 |                            |
| Awings, tents and sails          | 5                     | 4                   | 1     | 10           |      | Females                                  | 7                         | 7                         |                       | 3                         | 1                       |                         | 4                       |                      |                       | 2                     | 2                       | 7                         |                         |                         |                   |                      |                       | 7                         |                 |                            |
|                                  |                       |                     |       |              |      | Males                                    | 15                        | 15                        |                       | 10                        | 1                       | 5                       | 6                       | 1                    | 4                     | 5                     | 2                       | 13                        |                         | 2                       |                   |                      | 1                     | 15                        |                 |                            |
| Baskets and fruit packages       | 5                     | 4                   |       | 10           |      | Females                                  | 55                        | 45                        | 10                    | 31                        | 14                      | 5                       | 50                      |                      | 4                     | 8                     | 33                      | 20                        | 35                      |                         |                   |                      |                       | 45                        |                 |                            |
| Bath-brick and polishing powder. |                       |                     |       |              |      | Males                                    | 243                       | 195                       | 48                    | 96                        | 32                      | 60                      | 172                     | 20                   | 17                    | 42                    | 39                      | 28                        | 215                     |                         |                   | 27                   |                       | 128                       |                 |                            |
| Bed springs                      | 1                     | 1                   |       | 10           |      | Males                                    | 5                         | 5                         |                       | 5                         |                         |                         | 5                       |                      |                       | 1                     | 4                       | 5                         |                         |                         |                   |                      |                       | 5                         |                 |                            |
|                                  |                       |                     |       |              |      | Females                                  | 3                         | 3                         |                       |                           | 1                       | 1                       |                         | 3                    |                       | 3                     |                         |                           |                         |                         |                   |                      |                       |                           |                 |                            |
| Bee hives                        | 2                     | 1                   |       | 10           |      | Males                                    | 13                        | 10                        | 3                     | 2                         | 6                       | 4                       |                         | 9                    | 1                     | 3                     | 7                       | 10                        |                         |                         |                   |                      | 10                    |                           |                 |                            |
|                                  | 1                     | 1                   |       | 10           |      | Males                                    | 2                         | 2                         |                       | 1                         |                         | 1                       | 1                       |                      | 1                     |                       |                         | 2                         |                         |                         |                   |                      | 2                     |                           |                 |                            |
| Beer                             | 37                    | 31                  | 5     | 10:28        |      | Females                                  | 1                         | 1                         |                       |                           | 1                       | 1                       |                         |                      |                       |                       | 1                       |                           |                         |                         |                   |                      |                       | 1                         |                 |                            |
|                                  |                       |                     |       |              |      | Males                                    | 873                       | 371                       | 2                     | 50                        | 306                     | 186                     | 134                     | 65                   | 125                   | 112                   | 17                      | 196                       | 56                      | 116                     | 5                 | 25                   | 4                     | 380                       |                 |                            |
| Beer pumps                       | 2                     | 2                   |       | 8            |      | Males                                    | 4                         | 3                         | 1                     | 3                         | 1                       | 2                       | 2                       | 1                    | 1                     |                       | 2                       | 2                         | 2                       |                         |                   |                      |                       | 4                         |                 |                            |
| Beltting                         | 2                     | 2                   |       | 10           |      | Males                                    | 45                        | 45                        |                       | 9                         | 5                       | 27                      | 18                      | 2                    | 3                     | 7                     |                         | 45                        |                         |                         |                   |                      |                       | 45                        |                 |                            |

|  |    |    |        |                    |             |            |           |            |            |            |          |          |          |            |            |
|--|----|----|--------|--------------------|-------------|------------|-----------|------------|------------|------------|----------|----------|----------|------------|------------|
| Billiard tables.....   | 1  | 1  | 10     | Males              | 10          | 10         | 1         | 9          | 8          | 1          | 4        | 4        | 1        | 10         | 10         |
| Blank books.....   | 6  | 5  | 10     | { Females<br>Males | 50<br>59    | 50<br>56   | 23<br>42  | 2<br>13    | 21<br>38   | 50         | 2        | 1        | 49<br>22 | 50<br>59   | 4<br>2     |
| Boilers.....   | 10 | 9  | 10     | Males              | 140         | 137        | 3         | 58         | 55         | 46         | 30       | 36       | 25       | 19         | 140        |
| Boots and shoes.....   | 11 | 10 | 10 15  | { Females<br>Males | 86<br>173   | 86<br>171  | 2<br>2    | 39<br>83   | 84<br>84   | 55<br>38   | 43       | 4        | 12<br>28 | 45<br>173  | 16<br>1    |
| Boxes.....   | 16 | 16 | 10     | { Females<br>Males | 127<br>482  | 104<br>374 | 23<br>108 | 103<br>198 | 24<br>125  | 128<br>357 | 76       | 3        | 1<br>114 | 54<br>116  | 2<br>2     |
| Brick and tile.....  | 31 | 13 | 10 24  | { Females<br>Males | 75<br>788   | 72<br>725  | 3<br>63   | 60<br>162  | 43<br>459  | 18<br>295  | 129      | 301      | 1<br>140 | 254<br>383 | 48<br>151  |
| Bronze goods.....  | 1  | 1  | 10     | { Females<br>Males | 1<br>40     | 1<br>40    | 1<br>1    | 32<br>8    | 22<br>1    | 1          | 3        | 19       | 13<br>4  | 1<br>40    | 1<br>14    |
| Brooms and brushes.....  | 13 | 12 | 10 58  | { Females<br>Males | 10<br>101   | 10<br>83   | 18        | 9<br>75    | 23<br>34   | 10         | 10       | 24       | 2<br>27  | 8<br>110   | 7<br>2     |
| Building stone and monuments   | 16 | 14 | 9 35   | Males              | 157         | 156        | 1         | 71         | 86         | 74         | 37       | 20       | 40       | 35         | 5          |
| Candies and confectionery.   | 6  | 5  | 10     | { Females<br>Males | 100<br>112  | 95<br>107  | 5<br>5    | 90<br>84   | 10<br>28   | 4<br>37    | 96<br>75 | 10       | 1<br>29  | 94<br>50   | 100<br>112 |
| Canned goods.....  | 3  | 3  | 10     | { Females<br>Males | 104<br>94   | 82<br>63   | 22<br>31  | 56<br>51   | 48<br>36   | 54<br>42   | 2<br>23  | 16<br>19 | 31<br>18 | 25<br>87   | 79<br>7    |
| Carbon, glue, etc,   | 1  | 1  | 10     | Males              | 150         | 150        | 1         | 25         | 100        | 50         | 50       | 150      | 150      | 150        | 150        |
| Carriages, wag-<br>ons and sleighs   | 71 | 65 | 9 58   | { Females<br>Males | 3<br>925    | 3<br>909   | 16        | 677<br>16  | 296<br>504 | 3<br>459   | 252      | 255      | 264      | 1<br>106   | 3<br>920   |
| Car wheels.....  | 2  | 2  | 10     | Males              | 230         | 230        | 1         | 77         | 153        | 179        | 51       | 105      | 125      | 3          | 230        |
| Caskets and Un-<br>dertakers' supplies.....                                | 3  | 2  | 9 50   | { Females<br>Males | 5<br>44     | 5<br>44    | 1         | 5<br>28    | 16<br>38   | 5<br>16    | 16       | 12       | 12       | 2<br>4     | 5<br>24    |
| Castings and machinery.....  | 83 | 76 | 4 9 55 | { Females<br>Males | 11<br>2,080 | 6<br>2,030 | 5<br>50   | 6<br>996   | 1<br>1,205 | 10<br>820  | 464      | 477      | 440      | 1<br>216   | 6<br>342   |
| Cheese and dairy products  | 1  | 1  | 10     | Males              | 5           | 5          | 1         | 5          | 3          | 2          | 1        | 2        | 2        | 15         | 15         |
| Chemicals, etc.,<br>Churns, milk cab-<br>inets and refrig-<br>erators..... | 5  | 5  | 10     | { Females<br>Males | 303<br>311  | 293<br>283 | 40<br>28  | 166<br>194 | 2<br>21    | 301<br>183 | 9        | 1        | 19<br>67 | 145<br>85  | 76<br>58   |
| Cider vinegar and jelly.....   | 2  | 2  | 10     | Males              | 68          | 51         | 17        | 45         | 23         | 19         | 49       | 8        | 13       | 23         | 68         |
|  | 2  | 1  | 11     | { Females<br>Males | 2<br>13     | 2<br>13    | 1         | 2<br>4     | 2<br>9     | 2<br>4     | 1        | 2        | 2        | 2<br>8     | 2<br>13    |

TABLE No. 29.—Continued.

| Class of Industry.                               | Number in each Class. | Sanitary Condition. |       | Hrs per Day. | Sex. | Number of Employés. |                       |                                 | Nativity. |            | Civil Condition. |           | Number of Employés |                |           |                      |              |                    |               |                    |                        |              |                |                            |         |
|--|-----------------------|---------------------|-------|--------------|------|---------------------|-----------------------|---------------------------------|-----------|------------|------------------|-----------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|--------------------|------------------------|--------------|----------------|----------------------------|---------|
|  |                       | Good.               |       |              |      | Total Num-ber.      | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign.   | Married.         | Single.   | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregu-larly. | Having mon-ey in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |         |
|  |                       | Fair.               | Poor. |              |      |                     |                       |                                 |           |            |                  |           |                    |                |           |                      |              |                    |               |                    |                        |              |                |                            |         |
| Cigars and to-<br>bacco.....                     | 92                    | 81                  | 8     | 2            | 9 30 | { Females.<br>Males | 629<br>988            | 557<br>910                      | 72<br>78  | 116<br>416 | 116<br>380       | 59<br>338 | 401<br>562         | 104            | 39        | 31                   | 243          | 621                | 8             | 2                  | 2                      | 39           | 18             | 624<br>968                 | 5<br>16 |
| Clothes wringers.....                            | 2                     | 2                   | 10    | 10           |      | { Females.<br>Males | 16<br>16              |                                 |           | 11<br>5    | 9<br>7           |           |                    | 6              | 3         | 4                    | 3            | 16                 |               |                    |                        |              |                |                            |         |
| Clothing.....                                    | 8                     | 6                   | 11    | 25           |      | { Females.<br>Males | 222<br>130            | 218<br>130                      | 4         | 109<br>24  | 39<br>96         | 31<br>45  | 117<br>75          | 35             | 32        | 33                   | 107          | 222                |               |                    |                        | 7            | 36             | 222<br>130                 |         |
| Coal mining.....                                 | 1                     | 1                   | 7     |              |      | { Females.<br>Males | 31<br>31              |                                 |           | 6<br>25    | 25<br>6          |           |                    | 7              | 12        | 6                    | 6            |                    | 31            |                    |                        |              |                | 31                         |         |
| Cooperage.....                                   | 43                    | 42                  | 1     | 9 51         |      | { Females.<br>Males | 10<br>637             | 9<br>508                        | 1         | 4<br>329   | 1<br>191         | 1<br>330  | 9<br>244           | 138            | 206       | 152                  | 117          | 409                | 82            | 120                |                        | 28           | 22             | 616<br>9                   | 19      |
| Corsets.....                                     | 4                     | 4                   | 10    |              |      | { Females.<br>Males | 475<br>45             | 464<br>45                       | 11        | 381<br>40  | 94<br>5          | 27<br>23  | 448<br>16          | 11             | 9         | 82                   | 161          | 475                | 45            |                    |                        |              | 10<br>2        | 475<br>45                  |         |
| Crackers.....                                    | 8                     | 6                   | 10    |              |      | { Females.<br>Males | 17<br>149             | 16<br>141                       | 8         | 5<br>77    | 12<br>70         | 2<br>71   | 14<br>68           | 27             | 46        | 43                   | 23           | 149                |               |                    |                        | 1            | 3              | 17<br>149                  |         |
| Curtain fixtures.....                            | 2                     | 1                   | 1     | 10           |      | { Females.<br>Males | 38<br>34              | 4<br>4                          |           | 24<br>14   | 18<br>20         | 9<br>9    | 5<br>5             | 9              | 9         | 5                    | 15           | 38                 | 1             |                    |                        | 4            | 1              | 38                         |         |
| Door knobs.....                                  | 2                     | 2                   | 10    |              |      | { Females.<br>Males | 5<br>23               | 5<br>23                         |           | 4<br>17    | 1<br>6           | 1<br>1    |                    | 5              | 1         | 5                    | 17           | 23                 | 5             |                    |                        |              | 5<br>23        |                            |         |
| Edge tools.....                                  | 5                     | 4                   | 1     | 10           |      | { Females.<br>Males | 39<br>39              | 39<br>39                        |           | 18<br>21   | 19<br>21         | 10<br>10  | 1<br>1             | 12             | 14        | 6                    | 7            | 39                 | 1             |                    |                        | 1            | 4              | 39                         |         |
| Elbows.....                                      | 1                     | 1                   | 10    |              |      | { Females.<br>Males | 5<br>5                | 5<br>5                          |           | 5<br>5     | 5<br>5           |           |                    | 5              |           |                      | 5            | 5                  |               |                    |                        |              | 5              |                            |         |
| Electrical appa-<br>ratus and sup-<br>plies..... | 2                     | 2                   | 10    |              |      | { Females.<br>Males | 2<br>84               | 2<br>74                         | 10        | 2<br>63    | 21<br>21         | 31<br>31  | 2<br>2             | 5              | 26        | 17                   | 36           | 4                  |               | 2                  |                        | 40           | 4              | 2<br>84                    |         |
| Emery wheels.....                                | 1                     | 1                   | 10    |              |      | { Females.<br>Males | 39<br>39              | 39<br>39                        |           | 19<br>20   | 37<br>37         | 2<br>2    | 1<br>1             | 28             | 9         | 1                    | 1            | 39                 | 1             |                    |                        |              | 1              | 39                         |         |
| Engines.....                                     | 3                     | 3                   | 9 25  |              |      | { Females.<br>Males | 141<br>141            | 139<br>139                      | 2         | 29<br>29   | 37<br>37         | 41<br>41  | 25<br>25           | 12             | 27        | 21                   | 6            |                    | 121           | 20                 |                        | 3            | 7              | 141                        |         |
| Excelsior.....                                   | 2                     | 2                   | 10    |              |      | { Females.<br>Males | 36<br>36              | 36<br>36                        |           | 18<br>18   | 18<br>18         | 16<br>16  | 20<br>20           | 5              | 11        | 11                   | 9            | 36                 |               |                    |                        |              |                | 36                         |         |
| Exhaust fans and<br>blowers.....                 | 2                     | 2                   | 10    |              |      | { Females.<br>Males | 40<br>40              | 40<br>40                        |           | 33<br>33   | 7<br>7           | 27<br>27  | 13<br>13           | 6              | 21        | 10                   | 3            | 40                 |               |                    |                        |              |                | 40                         |         |

|   |    |    |    |                   |             |             |          |             |           |          |             |          |          |           |           |             |
|---|----|----|----|-------------------|-------------|-------------|----------|-------------|-----------|----------|-------------|----------|----------|-----------|-----------|-------------|
| Extracts and perfumery.....                 | 3  | 3  | 10 | Females.<br>Males | 13<br>33    | 11<br>27    | 2<br>6   | 11<br>32    | 2<br>1    | 12       | 13<br>20    | 8<br>4   | 13<br>11 | 13<br>20  | 13        | 13<br>33    |
| Felt goods.....                             | 1  | 1  | 10 | Females.<br>Males | 13<br>21    | 13<br>19    | 2        | 13<br>18    | 3         | 7        | 12<br>14    | 1<br>6   | 13<br>10 | 13<br>21  | 13        | 13<br>21    |
| Filcs.....                                  | 2  | 2  | 10 | Females.<br>Males | 1<br>19     | 1<br>18     | 1        | 1<br>19     | 1         | 5        | 1<br>14     | 3<br>2   | 1<br>14  | 1<br>19   | 1         | 1<br>19     |
| Fire kindlers.....                          | 1  | 1  | 10 | Males             | 14          | 5           | 9        | 14          | 2         | 2        | 12          | 2        | 12       | 14        | 14        | 14          |
| Flour and feed.....                         | 69 | 65 | 2  | Females.<br>Males | 659         | 658         | 1        | 393         | 195       | 375      | 174         | 295      | 57       | 580       | 43        | 650         |
| Fruit evaporators.....                      | 1  | 1  | 10 | Females.<br>Males | 8<br>3      | 8<br>2      | 1        | 8<br>3      | 7         | 7        | 1<br>3      | 7        | 1<br>1   | 8<br>3    | 8<br>3    | 8<br>3      |
| Fur goods.<br>Furnaces and heaters.....     | 1  | 1  | 10 | Females.<br>Males | 71<br>37    | 71<br>36    | 1        | 21<br>26    | 50<br>10  | 10<br>18 | 61<br>18    | 2        | 37       | 71        | 71<br>37  | 71<br>37    |
| Furniture.<br>Galvanized iron pipe.....     | 61 | 58 | 2  | Females.<br>Males | 85<br>2,345 | 78<br>2,101 | 7<br>244 | 17<br>1,001 | 17<br>887 | 4<br>982 | 30<br>1,124 | 588      | 1<br>450 | 21<br>480 | 2<br>774  | 85<br>2,330 |
| Gas fixtures.....                           | 1  | 1  | 10 | Males             | 13          | 13          | 3        | 3           | 10        | 9        | 4           | 9        | 4        | 13        | 1         | 13          |
| Gelatine goods.....                         | 1  | 1  | 9  | Females.<br>Males | 90<br>3     | 90<br>3     | 3        | 85<br>1     | 5<br>2    | 8<br>2   | 82<br>1     | 2        | 15<br>75 | 90<br>3   | 90<br>3   | 90<br>3     |
| Hair goods.....                             | 2  | 2  | 9  | Females.<br>Males | 34<br>1     | 34<br>1     | 1        | 34<br>1     | 1         | 1        | 33<br>1     | 1        | 28<br>1  | 34<br>1   | 34<br>1   | 34<br>1     |
| Handles, etc.....                           | 3  | 3  | 10 | Males             | 29          | 26          | 3        | 14          | 15        | 19       | 10          | 7        | 11       | 29        | 24        | 24          |
| Hardware.....                               | 3  | 3  | 10 | Females.<br>Males | 43<br>201   | 30<br>189   | 13<br>12 | 3<br>6      | 3<br>2    | 3<br>2   | 3<br>4      | 3<br>2   | 3<br>6   | 3<br>195  | 43<br>201 | 43<br>201   |
| Harness.....                                | 9  | 7  | 1  | Females.<br>Males | 6<br>59     | 6<br>56     | 3        | 3<br>10     | 6<br>14   | 6<br>29  | 6<br>27     | 4        | 3<br>10  | 3<br>55   | 6<br>4    | 6<br>59     |
| Hoops.....<br>Iron cornice and roofing..... | 4  | 3  | 10 | Males             | 201         | 174         | 27       | 43          | 23        | 26       | 40          | 12       | 14       | 26        | 11        | 201         |
| Jewelry.....                                | 5  | 5  | 9  | Males             | 30          | 30          | 41       | 9           | 21        | 10       | 20          | 4        | 2        | 26        | 4         | 30          |
| Knit goods.....                             | 5  | 5  | 10 | Females.<br>Males | 840<br>75   | 779<br>68   | 61<br>7  | 738<br>61   | 102<br>14 | 92<br>47 | 748<br>28   | 11<br>13 | 81<br>34 | 600<br>75 | 125       | 840<br>75   |
| Ladders.....                                | 2  | 2  | 10 | Males             | 7           | 7           | 7        | 4           | 3         | 2        | 5           | 2        | 3        | 2         | 1         | 7           |



TABLE NO. 29.—Continued.

| Class of Industry.               | Number in each Class. | Sanitary Condition. |       | Hrs per Day.        | Sex.         | Number of Employes. |                       |                                 | Nativity.  |            | Civil Condition. |            | Number of Employees |                |           |                      |              |                    |               |                   |                       |              |               |                            |
|----------------------------------|-----------------------|---------------------|-------|---------------------|--------------|---------------------|-----------------------|---------------------------------|------------|------------|------------------|------------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|--------------|---------------|----------------------------|
|                                  |                       | Hrs per Day.        |       |                     |              | Total Num-ber.      | Over 16 years of age. | Sixteen years of age and under. | Native.    | Foreign.   | Married.         | Single.    | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Apprentices. | Paid in Cash. | Paid part in Store Orders. |
|                                  |                       | Good.               | Poor. |                     |              |                     |                       |                                 |            |            |                  |            |                     |                |           |                      |              |                    |               |                   |                       |              |               |                            |
| Lead pipe and sheet lead.....    | 1                     | 1                   | 10    | Males               | 8            | 8                   |                       | 2                               | 6          | 2          | 4                | 2          | 1                   | 1              | 8         |                      |              |                    |               |                   |                       |              | 8             |                            |
| Leather dressing.                | 1                     | 1                   | 10    | Males               | 7            | 7                   |                       | 7                               |            | 1          | 6                |            | 1                   | 6              | 7         |                      |              |                    |               |                   |                       |              | 7             |                            |
| Lime.....                        | 7                     | 6                   | 10 11 | Males               | 65           | 63                  | 2                     | 16                              | 49         | 55         | 9                | 22         | 24                  |                | 2         | 51                   |              | 2                  |               |                   |                       |              | 53            |                            |
| Locks and scales.                | 2                     | 1                   | 10    | Males               | 7            | 5                   | 2                     | 3                               | 3          | 2          | 5                | 2          | 2                   | 1              | 2         | 7                    |              |                    |               | 2                 | 2                     |              | 7             |                            |
| Locomotives and cars.....        | 4                     | 3                   | 10    | { Females.<br>Males | 8<br>825     | 8                   | 822                   | 3                               | 4<br>272   | 4<br>414   | 2<br>504         | 6          | 211                 | 256            | 120       | 107                  |              |                    | 8             |                   | 183                   | 13           | 825           | 8                          |
| Lubricating and linseed oils.... | 3                     | 3                   | 10    | { Females.<br>Males | 4<br>24      | 4                   |                       | 3<br>8                          | 1          |            | 4                | 1          | 6                   | 4              | 4         | 4                    | 11           |                    |               |                   |                       |              | 24            | 4                          |
| Lumber, shingles and salt.       | 191                   | 166 12              | 10 32 | { Females.<br>Males | 25<br>12,700 | 22<br>12,001        | 3<br>689              | 22<br>4,404                     | 3<br>6,530 | 3<br>6,076 | 25<br>4,455      | 8<br>3,285 | 1<br>3,074          | 13             | 1,381     | 1,497                | 7,257        | 3,953              |               | 1,412             | 11                    | 12,436       | 226           |                            |
| Malt.....                        | 6                     | 6                   | 10 15 | { Females.<br>Males | 1<br>61      | 1                   |                       | 15<br>1                         | 46         | 45         | 16               | 13         | 33                  | 13             | 2         | 21                   | 9            | 18                 | 13            | 10                |                       | 61           | 1             |                            |
| Marble table tops.               | 1                     | 1                   | 10    | Males               | 8            | 7                   | 1                     | 2                               | 6          | 5          | 3                |            |                     |                |           | 8                    |              |                    |               |                   | 1                     | 8            |               |                            |
| Matches.....                     | 1                     | 1                   | 10    | { Females.<br>Males | 35<br>14     | 19<br>9             | 16<br>5               | 15                              | 20         |            | 35               |            | 1                   |                | 35        |                      | 35           | 35                 |               |                   |                       | 35           |               |                            |
| Metal novelties and brass goods. | 3                     | 3                   | 10    | Males               | 30           | 30                  |                       | 20                              | 10         | 12         | 18               | 3          | 9                   | 7              | 11        | 1                    | 29           |                    | 1             |                   |                       | 30           |               |                            |
| Mining.....                      | 2                     | 2                   | 10    | Males               | 4,000        | 3,990               | 10                    | 418                             | 3,582      | 2,430      | 1,570            | 820        | 1,416               | 1,213          | 551       |                      |              | 4,000              |               |                   |                       | 4,000        |               |                            |
| Mirrors.....                     | 1                     | 1                   | 10    | Males               | 1            | 1                   |                       | 1                               |            |            | 1                |            |                     |                | 1         | 1                    |              |                    |               |                   | 1                     | 1            |               |                            |
| Musical instruments.....         | 4                     | 4                   | 10    | Males               | 111          | 111                 |                       | 44                              | 67         | 58         | 43               | 11         | 46                  | 21             | 23        | 109                  |              | 2                  |               | 2                 |                       | 111          |               |                            |
| Oil cups.....                    | 1                     | 1                   | 10    | Males               | 4            | 4                   |                       | 4                               |            | 1          | 3                |            | 1                   | 1              | 2         | 4                    |              |                    |               |                   |                       | 4            |               |                            |
| Optical instruments.....         | 2                     | 2                   | 9     | { Females.<br>Males | 11<br>23     | 11                  |                       | 7<br>17                         | 4<br>6     | 1<br>6     | 10<br>17         |            |                     | 1<br>3         | 10<br>13  | 4<br>4               |              |                    |               |                   |                       | 4            |               |                            |
| Paper.....                       | 8                     | 7                   | 11 32 | { Females.<br>Males | 75<br>213    | 73<br>207           | 2<br>6                | 65<br>139                       | 9<br>73    | 8<br>157   | 64<br>35         | 85         | 76                  | 26             | 50        | 61                   | 12           | 52                 |               | 24                |                       | 75           | 213           |                            |

| Patterns and Models.                          | 3  | 3  | 10     | Males               | 4          | 4          | 2          | 2        | 8          | 1        | 1        | 1        | 2        | 4        | 4          | 1        | 1       | 4             |
|---|----|----|--------|---------------------|------------|------------|------------|----------|------------|----------|----------|----------|----------|----------|------------|----------|---------|---------------|
| Picture frames...                             | 5  | 5  | 10     | { Females.<br>Males | 10<br>62   | 10<br>62   | 10<br>54   | 8<br>18  | 10<br>44   | 10<br>40 | 8<br>10  | 1<br>8   | 10<br>43 | 10<br>52 | 10         | 1        | 1       | 10            |
| Pig iron.....                                 | 2  | 2  | 10     | Males               | 53         | 53         | 12         | 41       | 39         | 14       | 6        | 2        | 5        |          | 53         |          |         | 53            |
| Pins.....                                     | 1  | 1  | 10     | { Females.<br>Males | 23<br>13   | 21<br>13   | 23<br>12   |          |            | 23<br>12 | 3<br>2   | 8        | 23<br>3  |          | 23<br>13   |          |         | 23<br>13      |
| Planing mills, {<br>sash, doors and<br>blinds | 93 | 86 | 2 1 10 | { Females.<br>Males | 7<br>2,385 | 7<br>2,235 | 6<br>1,163 | 3<br>795 | 3<br>1,108 | 3<br>836 | 3<br>513 | 3<br>561 | 3<br>466 | 3<br>381 | 6<br>1,181 | 1<br>923 | 155     | 7<br>2,232 93 |
| Pop, ginger ale, etc                          | 2  | 2  | 10     | Males               | 6          | 6          | 3          | 3        | 1          | 5        |          |          | 5        | 1        | 6          |          |         | 6             |
| Potteries.....                                | 1  | 1  | 10     | Males               | 3          | 3          | 1          | 2        | 2          | 1        |          | 2        | 1        |          | 3          |          |         | 3             |
| Pressed yeast...                              | 1  | 1  | 8      | Males               | 5          | 5          | 4          | 1        | 3          | 2        | 3        |          | 2        |          | 5          |          |         | 5             |
| Pulp.....                                     | 3  | 3  | 11 10  | Males               | 89         | 88         | 1          | 50       | 39         | 60       | 28       | 44       | 16       | 15       | 13         |          | 89      | 89            |
| Pumps and wind-<br>mills                      | 8  | 6  | 1 10   | Males               | 47         | 47         | 43         | 4        | 36         | 11       | 11       | 24       | 9        | 3        | 33         | 12       | 2       | 47            |
| Regalias.....                                 | 1  | 1  | 9      | { Females.<br>Males | 25<br>9    | 25<br>8    | 24<br>7    | 1        | 1          | 25<br>6  | 2        |          | 25<br>2  | 25<br>1  | 25<br>9    |          |         | 25<br>9       |
| Saddlery hard-<br>ware.....                   | 1  | 1  | 10     | Males               | 5          | 5          | 2          | 3        | 2          | 3        | 2        |          | 3        |          | 5          |          | 1       | 5             |
| Saws.....                                     | 3  | 1  | 10     | Males               | 26         | 26         | 12         | 14       | 14         | 12       | 5        | 7        | 9        | 5        | 26         |          | 3       | 26            |
| Screen doors.....                             | 1  | 1  | 10     | Males               | 8          | 6          | 2          | 8        |            | 2        | 6        | 1        | 3        | 3        | 8          |          |         | 8             |
| Sewing machines.                              | 1  | 1  | 9      | { Females.<br>Males | 26<br>26   | 4<br>26    |            |          |            |          |          |          |          |          | 4<br>26    |          |         | 4<br>26       |
| Shirts.....                                   | 3  | 3  | 9 30   | { Females.<br>Males | 35<br>6    | 35<br>6    | 33<br>5    | 2<br>1   | 3<br>2     | 32<br>4  |          | 2        | 15<br>4  | 20<br>4  | 35<br>6    |          |         | 35<br>6       |
| Shoe uppers.....                              | 2  | 2  | 10     | { Females.<br>Males | 4<br>4     | 4<br>4     | 3<br>2     | 1<br>2   | 1<br>2     | 4<br>2   | 4<br>2   | 2<br>1   | 4<br>1   | 4<br>1   | 4<br>4     |          |         | 4<br>4        |
| Show cases.....                               | 1  | 1  | 10     | Males               | 35         | 32         | 3          | 9        | 26         | 27       | 8        | 10       | 17       | 8        |            | 35       | 5       |               |
| Snow plows.....                               | 1  | 1  | 10     | Males               | 3          | 2          | 1          | 1        | 2          | 1        | 2        | 1        | 1        | 1        |            | 3        |         | 3             |
| Soap and potash...                            | 5  | 4  | 1 10   | { Females.<br>Males | 4<br>36    | 4<br>34    | 2<br>23    | 2<br>13  | 2<br>14    | 4<br>22  | 4<br>7   | 7<br>10  | 6<br>32  | 4<br>4   |            |          | 4<br>32 | 4<br>32       |
| Spices, extracts {<br>and baking<br>powder    | 2  | 2  | 10     | { Females.<br>Males | 1<br>10    | 1<br>10    | 1<br>6     | 4<br>5   | 5<br>3     | 1<br>5   | 3<br>1   | 4<br>1   | 2<br>4   | 1<br>2   | 10<br>10   |          |         | 1<br>10       |
| Sporting goods...                             | 3  | 3  | 9 54   | Males               | 37         | 37         | 33         | 4        | 24         | 13       | 7        | 19       | 6        | 5        | 22         | 15       |         | 37            |
| Stained glass.....                            | 2  | 2  | 10     | Males               | 15         | 15         | 8          | 7        | 7          | 8        | 3        | 4        | 5        | 3        | 15         |          | 4       | 15            |

TABLE NO. 29—Continued.

| Class of Industry.                | Number in each Class. |                       | Sanitary Condition.      |         | Hrs per Day.       |            | Sex.    | Number of Employés. |               |                | Nativity. |                      | Civil Condition. |                    | Number of Employés |                    |                        |              |                |                            |    |         |         |         |
|-----------------------------------|-----------------------|-----------------------|--------------------------|---------|--------------------|------------|---------|---------------------|---------------|----------------|-----------|----------------------|------------------|--------------------|--------------------|--------------------|------------------------|--------------|----------------|----------------------------|----|---------|---------|---------|
|                                   | Total Num-ber.        | Over 16 years of age. | Sixteen years and under. | Native. | Foreign.           | Married.   |         | Single.             | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly.     | Paid Semi-monthly. | Paid Monthly.      | Paid Irregu-larly. | Having mon-ey in Bank. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |    |         |         |         |
|                                   |                       |                       |                          |         |                    |            |         |                     |               |                |           |                      |                  |                    |                    |                    |                        |              |                |                            |    |         |         |         |
| Staves & heading.                 | 11                    | 8                     | 1                        | 10      | Males              | 365        | 319     | 46                  | 237           | 83             | 107       | 133                  | 48               | 74                 | 71                 | 88                 | 106                    | 142          | 42             | 75                         | 3  | 385     | 385     |         |
| Stencils & stamps.                | 2                     | 1                     | 1                        | 9       | Males              | 9          | 9       |                     | 7             | 2              | 2         | 7                    |                  | 2                  | 5                  | 2                  | 9                      |              |                |                            | 1  | 9       | 9       |         |
| Stove boards.                     | 1                     | 1                     | 1                        | 10      | Males              | 10         | 10      |                     | 10            |                | 5         | 5                    | 1                | 4                  | 5                  |                    |                        | 10           |                |                            | 3  | 10      | 10      |         |
| Stoves & Ranges.                  | 2                     | 2                     |                          | 10      | { Females<br>Males | 725<br>667 | 58      | 280                 | 445           | 357            | 379       | 145                  | 200              | 123                | 237                | 1                  | 1                      | 725          | 1              |                            | 72 | 725     | 725     |         |
| Straw goods                       | 2                     | 2                     |                          | 10      | { Females<br>Males | 100<br>100 | 97      | 3                   | 80            | 20             | 5         | 95                   | 5                | 5                  | 32                 | 63                 | 3                      | 100          | 100            |                            | 45 | 100     | 100     |         |
| Suspenders and braces             | 1                     | 1                     | 1                        | 9       | { Females<br>Males | 5<br>1     | 5       | 1                   | 5             |                |           | 5                    |                  | 1                  | 1                  | 1                  | 5                      | 5            | 1              |                            |    |         | 5       | 5       |
| Tackle blocks.                    | 1                     | 1                     | 1                        | 10      | Males              | 12         | 12      |                     | 10            | 2              | 9         | 3                    | 2                | 9                  | 1                  |                    | 1                      | 12           |                |                            | 1  | 12      | 12      |         |
| Tanned leather.                   | 14                    | 11                    | 1                        | 2       | { Females<br>Males | 12<br>352  | 12      |                     | 12            |                |           | 12                   | 166              | 89                 | 38                 | 12                 | 53                     | 185          | 167            |                            | 52 |         | 332     | 332     |
| Telegraph poles, pins & brackets. | 2                     | 2                     |                          | 10      | Males              | 23         | 22      | 1                   | 11            | 12             | 10        | 13                   | 1                | 10                 | 3                  | 9                  | 23                     |              |                | 1                          |    | 23      | 23      |         |
| Tin, copper and sheet iron.       | 9                     | 8                     | 1                        | 10      | Males              | 76         | 74      | 2                   | 47            | 29             | 28        | 48                   | 8                | 20                 | 19                 | 29                 | 57                     | 19           |                |                            | 12 | 76      | 76      |         |
| Tooth-picks.                      | 1                     |                       |                          | 10      | { Females<br>Males | 11<br>5    | 9<br>4  | 2<br>1              | 11<br>5       |                |           | 11<br>2              | 2                | 1                  | 2                  | 11                 |                        |              | 11<br>5        |                            |    | 11<br>5 | 11<br>5 | 11<br>5 |
| Toys.                             | 1                     | 1                     | 1                        | 10      | Males              | 2          | 2       |                     | 1             | 1              |           | 2                    |                  |                    | 1                  | 1                  |                        |              |                | 2                          |    |         |         |         |
| Trunks and valises.               | 6                     | 6                     |                          | 10      | Males              | 115        | 100     | 15                  | 97            | 18             | 47        | 68                   | 12               | 37                 | 37                 | 29                 | 7                      | 108          |                |                            | 1  | 113     | 113     |         |
| Type-writers.                     | 1                     | 1                     | 1                        | 10      | Males              | 4          | 4       |                     | 2             | 2              | 2         | 2                    |                  | 2                  | 2                  |                    | 4                      |              |                |                            |    | 4       | 4       |         |
| Umbrellas and parasols.           | 1                     | 1                     | 1                        | 10      | Males              | 2          | 2       |                     | 2             |                | 1         | 1                    |                  |                    | 1                  | 1                  | 2                      |              |                |                            |    | 2       | 2       |         |
| Underwear.                        | 1                     | 1                     | 1                        | 10      | { Females<br>Males | 84<br>9    | 80<br>9 | 4                   |               |                | 11<br>6   | 69<br>3              |                  |                    |                    |                    | 84<br>9                |              |                |                            |    | 84<br>9 | 84<br>9 |         |
| Valves and hydrants.              | 1                     | 1                     |                          | 10      | Males              | 90         | 84      | 6                   | 70            | 20             | 35        | 55                   | 20               | 15                 | 23                 | 32                 | 90                     |              |                |                            |    | 90      | 90      |         |

|  |   |   |      |              |     |     |     |     |     |     |     |     |    |    |     |     |     |    |
|--|---|---|------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|----|
| Varnishes.....                         | 1 | 1 | 10   | Males.....   | 28  | 28  | 4   | 24  | 28  | 2   | 24  | 2   | 2  | 28 | 2   | 2   | 28  | 28 |
| Veneers and panels.....                | 2 | 2 | 10   | Males.....   | 19  | 19  | 17  | 2   | 13  | 6   | 5   | 5   | 8  | 1  | 1   | 19  | 19  | 19 |
| Vessel building.....                   | 8 | 8 | 10   | Males.....   | 273 | 373 | 121 | 212 | 320 | 53  | 108 | 178 | 35 | 12 | 175 | 68  | 125 | 4  |
| Wheel-barrows.....                     | 4 | 4 | 9.45 | Males.....   | 85  | 82  | 70  | 15  | 44  | 29  | 21  | 33  | 12 | 19 | 85  | 85  | 85  | 85 |
| Wheels, spokes, and bent goods (.....) | 2 | 2 | 10   | Females..... | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1  | 1  | 1   | 1   | 1   | 1  |
| White lead and paints.....             | 2 | 2 | 10   | Males.....   | 54  | 54  | 36  | 19  | 34  | 20  | 15  | 16  | 23 | 1  | 54  | 54  | 54  | 54 |
| Window shades.....                     | 2 | 2 | 10   | Males.....   | 28  | 28  | 19  | 9   | 8   | 20  | 8   | 6   | 4  | 16 | 28  | 28  | 28  | 28 |
| Wire and iron works.....               | 1 | 1 | 10   | Males.....   | 2   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1  | 2  | 2   | 2   | 2   | 2  |
| Wire and iron works.....               | 5 | 5 | 8.37 | Females..... | 10  | 10  | 10  | 10  | 2   | 8   | 16  | 28  | 62 | 30 | 140 | 130 | 10  | 10 |
| Wooden-ware.....                       | 6 | 4 | 1    | Males.....   | 270 | 255 | 166 | 104 | 76  | 194 | 16  | 28  | 13 | 13 | 130 | 10  | 30  | 1  |
| Wood water-pipe.....                   | 1 | 1 | 10   | Females..... | 13  | 13  | 5   | 8   | 10  | 10  | 44  | 41  | 83 | 89 | 81  | 245 | 104 | 10 |
| Woolens.....                           | 6 | 5 | 1    | Males.....   | 40  | 37  | 15  | 25  | 20  | 20  | 10  | 10  | 14 | 6  | 40  | 40  | 9   | 8  |
|  |   |   |      | Females..... | 76  | 68  | 10  | 8   | 6   | 70  | 6   | 7   | 1  | 63 | 76  | 76  | 1   | 1  |
|  |   |   |      | Males.....   | 35  | 30  | 29  | 6   | 14  | 21  | 6   | 6   | 10 | 11 | 35  | 35  | 35  | 35 |





TABLE NO. 30.—Continued.

| Class of Industry.                         | Sex. | Wages per Day.* |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|--|------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|----------|---------|---------|---------|
|  |      | \$0 25.         | \$0 35. | \$0 40. | \$0 45. | \$0 50. | \$0 55. | \$0 60. | \$0 65. | \$0 75. | \$0 80. | \$0 85. | \$0 90. | \$1 00. | \$1 10. | \$1 12½. | \$1 15. | \$1 20. | \$1 25. | \$1 30. | \$1 35. | \$1 37½. | \$1 40. | \$1 45. | \$1 50. |
| Excelsior.....                             | M.   |                 |         |         |         | 1       |         | 2       |         | 5       |         |         |         | 9       | 6       |          |         |         |         |         |         |          |         |         | 6       |
| Exhaust fans and blowers.....              | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 1       |         |          |         |         | 3       |         |         |          |         |         | 9       |
| Extracts and perfumes.....                 | F.   |                 |         |         |         |         |         | 8       |         |         |         |         |         | 2       |         |          |         |         | 1       |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         | 2       |         |         |         |         |         | 1       |         |          |         |         | 2       |         |         |          |         |         |         |
| Felt goods.....                            | F.   |                 |         |         |         |         |         |         |         | 2       |         |         |         | 9       |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         | 3       |         | 1       |         |         |         | 4       |         |          |         |         | 1       |         |         |          | 2       | 2       |         |
| Files.....                                 | F.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         | 7       |         |         |          |         |         |         |
| Fire-kindlers.....                         | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 5       |
| Flour and feed.....                        | F.   |                 |         |         |         | 1       |         |         |         | 1       |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         | 2       |
|  | M.   |                 |         |         |         |         |         | 2       |         | 7       |         |         |         | 21      | 17      |          |         | 7       | 150     |         | 20      | 8        |         |         | 145     |
| Fruit evaporating.....                     | F.   |                 |         | 2       |         | 6       |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         | 1       |         |         |         |         |         |         | 1       |         |         |          |         |         |         |         |         |          |         |         |         |
| Fur goods.....                             | F.   | 10              |         |         |         | 11      |         |         |         | 15      | 18      |         |         | 10      |         |          |         |         | 5       |         | 1       |          |         |         |         |
|  | M.   |                 |         |         |         |         |         |         |         | 1       |         |         | 1       | 3       |         |          |         |         |         |         |         |          |         |         |         |
| Furnaces and heaters.....                  | M.   |                 |         |         |         |         |         |         |         |         |         |         | 10      |         |         |          |         |         | 7       |         | 6       |          |         |         | 2       |
|  | F.   |                 |         |         |         | 1       | 46      | 1       | 4       | 2       | 1       |         |         | 15      | 1       |          |         |         |         |         |         |          |         |         | 6       |
| Furniture.....                             | M.   |                 | 3       | 18      | 8       | 34      | 13      | 31      | 3       | 39      | 8       | 15      | 22      | 219     | 21      | 5        | 6       |         | 270     | 7       | 72      | 11       | 4       |         | 424     |
| Galvanized pipe.....                       | M.   |                 |         |         |         |         |         | 1       |         |         |         |         |         | 4       |         |          |         |         | 2       |         |         |          |         |         |         |
| Gas fixtures.....                          | M.   |                 |         |         |         |         |         |         | 4       |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         | 5       |
| Gelatine goods.....                        | F.   |                 |         |         |         |         |         |         |         | 43      |         | 38      |         | 6       |         |          |         | 1       |         |         | 1       |          |         |         | 1       |
|  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Hair goods.....                            | F.   |                 |         |         |         | 1       |         |         |         | 4       | 8       |         |         |         |         |          | 2       |         |         |         |         |          |         |         | 17      |
| Handles, etc.....                          | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 5       |         |          |         |         | 3       |         | 1       |          |         |         |         |
| Hardware.....                              | F.   | 1               |         | 1       |         |         |         |         | 27      |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         |         |         | 10      |         |         |         | 35      |         |          |         |         | 25      |         |         |          |         |         | 28      |
| Harness.....                               | F.   |                 |         |         |         | 2       |         |         | 1       |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Hoops.....                                 | M.   |                 |         |         |         | 6       | 1       | 10      |         | 5       | 3       | 6       | 12      | 1       |         |          | 18      |         | 25      |         |         | 1        | 1       | 2       | 14      |
| Iron cornice and roofing.....              | M.   |                 |         |         |         |         |         | 2       |         |         |         |         |         |         |         |          |         |         | 6       |         |         |          |         |         | 27      |
| Jewelry.....                               | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 3       |         |          |         |         |         |         |         |          |         |         | 4       |
|  | F.   | 1               | 30      | 21      | 182     | 112     | 74      | 5       |         | 126     | 88      | 75      | 41      | 1       |         |          |         |         | 11      | 5       | 5       |          | 3       |         | 5       |
| Knit goods.....                            | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 9       | 7       | 10       |         |         | 6       |         |         |          |         |         | 3       |
|  | F.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Ladders.....                               | M.   |                 |         |         |         |         |         |         | 1       |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 1       |
| Lead pipe and sheet lead.....              | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 3       |
| Leather dressing.....                      | M.   |                 |         |         |         |         |         |         |         | 5       |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         |         |
| Lime.....                                  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 2       |         |          |         | 2       | 22      |         |         |          |         |         | 23      |
| Locks and scales.....                      | M.   |                 |         |         |         |         |         |         | 1       |         |         |         |         |         |         |          |         |         | 1       |         |         |          |         |         |         |
| Locomotives and cars.....                  | F.   |                 |         |         |         | 1       |         | 2       |         | 3       | 6       |         | 4       | 6       | 16      |          | 5       | 10      | 39      | 19      | 37      | 1        | 8       | 25      | 78      |
|  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Lubricating and linseed oils.....          | M.   |                 |         |         |         | 1       |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 1       |
|  | F.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Lumber, shingles and salt.....             | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 10      |         |          |         |         | 4       |         |         |          |         |         |         |
|  | F.   |                 |         |         |         | 45      |         | 5       | 3       | 64      |         | 6       | 18      | 328     | 146     | 89       | 110     | 52      | 1936    | 5       | 311     | 914      | 7       | 20      | 2567    |
| Malt.....                                  | F.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Marble tops.....                           | M.   |                 |         |         |         |         |         |         |         |         |         |         |         | 2       |         |          |         |         |         |         |         |          |         |         | 22      |
| Matches.....                               | F.   |                 |         |         |         | 9       |         | 6       |         | 2       |         |         |         |         |         |          |         |         |         |         | 3       |          |         |         |         |
|  | M.   |                 |         |         |         | 3       |         |         |         |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         | 1       |
| Metal novelties and brass goods.....       | M.   |                 |         |         |         | 1       |         | 5       | 2       | 1       |         |         |         | 3       |         |          |         |         | 2       |         |         |          |         |         | 1       |
| Mining.....                                | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Mirrors.....                               | M.   |                 |         |         |         | 1       |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         | 220      | 302     |         |         |
| Musical instruments.....                   | M.   |                 |         |         |         | 8       |         | 5       |         | 1       |         | 2       |         | 5       |         |          |         |         |         |         |         |          |         |         | 17      |
| Oil cups.....                              | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 1       |
|  | F.   |                 |         |         |         |         |         | 5       |         |         |         |         | 1       | 1       |         |          |         |         | 1       |         |         |          |         |         | 1       |
| Optical instruments.....                   | M.   |                 |         |         |         |         |         |         | 1       |         |         |         |         | 1       |         |          |         |         | 1       |         |         |          |         |         | 2       |
|  | F.   |                 |         | 1       |         | 3       |         | 13      | 5       | 12      | 2       |         | 9       | 4       | 24      |          |         |         |         |         |         |          |         |         |         |
| Paper.....                                 | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         | 44      |         | 5       |          |         |         | 69      |
| Patterns and models.....                   | M.   |                 |         |         |         | 1       |         |         |         |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         |         |
|  | F.   |                 |         |         |         | 6       |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Picture frames.....                        | M.   | 2               |         |         |         | 22      |         |         |         | 1       |         | 9       |         |         |         |          | 1       |         | 2       |         |         |          |         |         | 8       |
| Pig iron.....                              | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         | 1       |
|  | F.   | 1               |         | 4       |         | 1       |         | 6       |         | 8       |         |         |         | 1       |         |          |         |         | 4       |         |         |          | 15      |         |         |
| Pins.....                                  | M.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
|  | F.   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |
| Planing mills, sash, doors and blinds..... | M.   |                 |         | 11      | 1       | 31      |         | 10      | 15      | 50      | 6       | 7       | 11      | 118     | 32      | 15       |         |         | 408     |         | 157     | 17       | 1       |         | 351     |

\*In addition to wages given in above table, there is one man in flour mill receiving \$1.80 per day, and 1 receiving \$5.65; 1 in lumber mill receiving \$5.75, 1 receiving \$6.37 and 1 receiving \$6.50; 1 in oils receiving \$6.41; 1 jeweler receiving \$6.66; 1 in paper mill receiving \$7.00; 1 in mining receiving \$8.50, and 1 in locomotive and car shops receiving \$9.56 per day.





TABLE NO. 30.—Continued.

| Class of Industry.                          | Sex.    | Wages per Day. |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|---|---------|----------------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|----------|---------|---------|---------|--|
|   |         | \$0 35.        | \$0 40. | \$0 45. | \$0 50. | \$0 60. | \$0 62½. | \$0 65. | \$0 70. | \$0 75. | \$0 80. | \$0 85. | \$0 90. | \$1 00. | \$1 10. | \$1 12½. | \$1 15. | \$1 20. | \$1 25. | \$1 30. | \$1 35. | \$1 37½. | \$1 40. | \$1 50. | \$1 60. |  |
| Pop, ginger ale, etc.                       | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 1       |         |          |         |         | 1       |         |         |          |         |         |         |  |
| Potteries                                   | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         | 3       |          |         |         |         |  |
| Pressed yeast                               | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Pulp  | Males   |                |         |         |         |         |          |         |         | 3       |         |         |         | 10      |         |          |         |         | 23      |         | 6       |          |         | 23      | 3       |  |
| Pumps and wind-<br>mills                    | Males   |                |         |         |         |         |          |         | 2       |         |         | 2       | 5       |         |         |          |         | 3       |         |         |         |          |         | 14      | 1       |  |
| Regalia                                     | Females |                |         |         |         |         |          |         |         |         |         | 20      |         |         |         |          |         | 3       |         |         | 1       |          |         |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         | 2       |          |         | 2       |         |  |
| Saddlery hard-<br>ware                      | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 1       |         |          |         | 1       |         |         |         | 2        |         |         |         |  |
| Saws  | Males   |                |         |         |         |         |          |         |         |         |         | 2       |         | 1       |         |          |         |         | 2       |         |         |          | 7       |         |         |  |
| Screen doors                                | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          | 1       |         |         |  |
| Sewing machines                             | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         | 1       |         |         |         |          | 1       |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         | 10      | 6       | 6       |         |          |         |         |         |         | 2       |          | 1       |         |         |  |
| Shirts                                      | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          | 6       | 6       | 7       |         |         |          |         |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         |         |  |
| Shoe uppers                                 | Females |                |         |         | 1       | 1       |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         | 1       |         |  |
|   | Males   |                |         |         |         | 1       |          |         |         |         |         |         |         |         |         |          |         |         | 1       |         |         |          |         | 1       |         |  |
| Show cases                                  | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         | 8       |         |  |
| Snow plows                                  | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Soap and potash                             | Females |                |         |         | 2       |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         | 1       |          |         |         |         |  |
|   | Males   |                |         |         | 3       | 1       |          |         |         |         |         |         | 1       | 4       | 3       |          | 1       |         | 3       |         |         | 1        |         | 8       |         |  |
| Spices, extracts<br>and baking-pow-<br>ders | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         | 2       |         |  |
| Sporting goods                              | Males   |                |         |         | 3       |         |          |         |         | 1       |         |         | 2       | 3       | 1       |          |         |         | 2       |         | 1       |          |         | 6       | 1       |  |
| Stained glass                               | Males   |                |         |         |         |         |          |         |         |         |         | 1       |         |         |         |          |         |         | 4       |         |         |          |         |         |         |  |
| Staves and heading                          | Males   |                | 7       | 13      | 1       |         |          |         |         | 6       |         |         | 1       | 67      | 4       | 10       |         |         | 65      |         | 35      | 1        |         | 50      | 3       |  |
| Stencils and stamps                         | Males   |                | 1       |         | 1       |         |          |         |         |         |         |         |         | 1       |         |          |         |         |         |         | 1       |          |         | 1       |         |  |
| Stove boards                                | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 2       |         |          |         |         | 2       |         |         |          |         | 1       |         |  |
| Stoves and ranges                           | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   |                |         |         | 7       | 3       |          |         |         | 14      | 2       | 1       | 2       | 28      |         | 9        |         |         | 50      |         |         | 14       |         | 71      |         |  |
| Straw goods                                 | Females |                |         |         |         | 20      |          |         |         |         |         | 20      |         | 20      |         |          |         |         |         | 20      |         |          |         |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         | 2       |         | 28      | 4       |          |         |         | 15      |         |         |          |         | 5       |         |  |
| Suspenders and<br>braces                    | Females |                |         |         |         |         |          | 1       | 1       | 3       |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Tackle blocks                               | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         | 3       |         |         |          |         | 1       |         |  |
| Tanned leather                              | Females |                |         |         | 6       |         | 2        | 2       |         | 1       |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   |                |         |         | 1       |         | 1        |         |         | 8       |         |         |         | 13      | 10      | 1        | 10      |         | 69      |         | 32      |          | 1       | 92      | 9       |  |
| Telegraph poles,<br>pins and brack-<br>ets  | Males   |                |         |         | 3       |         |          |         |         | 4       |         |         |         | 3       |         |          |         | 2       | 3       |         |         |          | 2       | 3       |         |  |
| Tin, copper and<br>sheet-iron               | Males   |                |         |         | 1       |         | 7        |         |         | 3       |         | 5       |         | 5       |         |          |         |         | 10      |         | 1       | 1        |         | 10      |         |  |
| Tooth-picks and<br>Toys                     | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 9       |         |          |         |         |         |         |         |          |         |         |         |  |
| Trunks and valises                          | Males   |                |         |         |         |         |          |         |         | 5       |         |         |         | 11      | 1       |          |         |         | 5       |         | 4       |          |         | 10      | 2       |  |
| Type writers                                | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Umbrellas                                   | Males   |                |         |         | 1       |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Females |                |         |         | 18      | 12      |          |         |         |         | 13      | 6       | 25      |         |         |          |         | 2       |         | 3       |         |          |         |         |         |  |
| Underwear                                   | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Valves and hy-<br>drants                    | Males   |                |         |         |         |         | 2        |         |         | 1       | 13      |         | 7       |         |         |          |         |         | 18      |         |         |          |         | 12      |         |  |
| Varnishes                                   | Males   |                |         |         |         |         |          |         |         | 2       |         |         |         |         |         |          |         |         | 1       |         |         |          |         | 8       |         |  |
| Veneers and<br>panels                       | Males   |                |         |         | 1       |         |          |         |         | 2       |         |         |         |         |         |          |         |         | 6       |         |         |          |         | 6       |         |  |
| Vessel building                             | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Wheelbarrows                                | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 3       | 12      | 6        |         |         | 13      |         | 2       |          |         | 43      |         |  |
| Wheels, spokes<br>and bent goods            | Females |                |         |         |         |         |          |         |         |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         | 26      | 1       |  |
|   | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         | 5       |         | 37      |          |         | 5       |         |  |
| White lead and<br>paints                    | Males   |                |         |         |         |         | 10       |         |         |         |         | 3       |         |         |         |          |         | 7       |         |         | 1       |          |         |         |         |  |
| Window shades                               | Males   |                |         |         |         |         |          |         |         |         |         |         |         | 1       |         |          |         |         |         |         |         |          |         |         |         |  |
| Wire and iron<br>works                      | Females |                |         |         |         | 10      |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   | 6              | 4       | 3       | 15      | 23      |          | 8       | 2       | 15      | 3       | 20      | 4       | 15      | 1       |          | 1       |         | 25      |         | 15      |          |         | 24      |         |  |
|   | Females |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
| Wooden ware                                 | Males   |                |         |         |         | 8       |          |         |         | 20      |         |         | 5       | 42      |         |          |         | 3       | 3       | 128     |         | 3        |         | 79      |         |  |
| Wood water-pipe                             | Males   |                |         |         |         |         |          |         |         |         |         |         |         |         |         |          | 3       |         |         |         |         |          |         | 8       |         |  |
| Woolens                                     | Females | 2              | 1       |         |         | 5       |          |         |         | 1       |         |         |         |         |         |          |         |         |         |         |         |          |         |         |         |  |
|   | Males   |                |         |         | 2       | 1       | 1        |         |         | 1       |         |         |         | 6       | 1       |          | 1       |         | 2       |         |         |          |         | 9       |         |  |

TABLE No. 80.—Continued.

| Wages per Day. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | Total Number. | Average Daily Wages. |          |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|----------------------|----------|
| \$1.62½.       | \$1.65. | \$1.70. | \$1.75. | \$1.80. | \$1.90. | \$2.00. | \$2.05. | \$2.25. | \$2.35. | \$2.50. | \$2.65. | \$2.70. | \$2.75. | \$2.85. | \$3.00. | \$3.25. | \$3.35. | \$3.50. | \$3.75. | \$4.00. | \$4.17. | \$4.50. | \$5.00. | \$6.00. | \$6.70. | \$8.00.       |                      |          |
|                |         |         |         |         |         | 3       |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 6                    | \$1.79 + |
|                |         |         |         |         |         | 5       |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 3                    | 1.35     |
|                |         |         |         |         |         | 10      |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 5                    | 2.00     |
|                |         |         |         |         |         | 13      |         |         |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 87                   | 1.41     |
|                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 47                   | 1.58 +   |
|                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 25                   | 95 +     |
|                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 6                    | 1.25 +   |
|                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 5                    | 1.45     |
|                |         |         |         |         |         | 6       |         |         |         | 3       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 26                   | 2.11     |
|                |         |         |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 6                    | 1.11 +   |
|                |         |         |         |         |         | 2       |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 4                    | 1.70     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 26                   | 2.02     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 35                   | 1.06 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 6                    | 2.22 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 4                    | 90       |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 4                    | 1.51 +   |
|                |         |         |         |         |         | 24      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 32                   | 1.87 +   |
|                |         |         |         |         |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 2                    | 2.00     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 4                    | 1.00     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 34                   | 1.49 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 1                    | 1.00     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 10                   | 1.97 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 36                   | 1.50 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 15                   | 1.57 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 319                  | 1.35 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 9                    | 1.42 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 10                   | 1.85     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 1                    | 1.50     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 387                  | 1.76 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 100                  | 1.14     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 97                   | 1.60 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 5                    | 72       |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 12                   | 1.85 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 12                   | 60 +     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 337                  | 1.55 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 22                   | 1.17 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 73                   | 1.53 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 9                    | 1.00     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 6                    | 1.20 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 100                  | 1.71 +   |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 4                    | 2.50     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 2                    | 75       |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               | 80                   | 81 +     |
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |          |

TABLE NO. 31.—*Showing the Number of Male and Female Employés over 16 Years of Age receiving each given rate of Wage and the Average Wages paid to Male and Female Employés in the Manufacturing Establishments of the 52 Towns and Cities Canvassed.*

| Number.                    | Sex.        | Wages. | Number. | Sex.                                 | Wages. | Number. | Sex.        | Wages. |
|----------------------------|-------------|--------|---------|--------------------------------------|--------|---------|-------------|--------|
| 2                          | Males ..... | \$0 17 | 34      | Females.                             | \$1 30 | 407     | Males ..... | \$3 75 |
| 17                         | Females. }  |        | 58      | Males ... }                          |        | 1       | Male .....  | 2 85   |
| 2                          | Males ... } | 25     | 25      | Females. }                           | 1 35   | 789     | Males ..... | 3 00   |
| 20                         | Females. }  |        | 1,068   | Males ... }                          |        | 192     | Males ..... | 3 08   |
| 1                          | Male .....  | 30     | 1,297   | Males .....                          | 1 37½  | 6       | Males ..... | 3 20   |
| 33                         | Females. }  |        | 2       | Females. }                           | 1 40   | 139     | Males ..... | 3 25   |
| 16                         | Males ... } | 35     | 70      | Males ... }                          |        | 28      | Males ..... | 3 35   |
| 5                          | Females...  | 37     | 418     | Males .....                          | 1 45   | 29      | Males ..... | 3 40   |
| 61                         | Females. }  |        | 85      | Females. }                           | 1 50   | 318     | Males ..... | 3 50   |
| 55                         | Males ... } | 40     | 5,973   | Males ... }                          |        | 6       | Males ..... | 3 75   |
| 183                        | Females. }  |        | 10      | Males .....                          | 1 55   | 4       | Males ..... | 3 85   |
| 12                         | Males ... } | 45     | 1,133   | Males .....                          | 1 60   | 255     | Males ..... | 4 00   |
| 386                        | Females. }  |        | 2       | Females. }                           | 1 62½  | 2       | Males ..... | 4 17   |
| 362                        | Males ... } | 50     | 429     | Males ... }                          |        | 5       | Males ..... | 4 25   |
| 131                        | Females. }  |        | 10      | Females. }                           | 1 65   | 54      | Males ..... | 4 50   |
| 15                         | Males ... } | 55     | 1,346   | Males ... }                          |        | 5       | Males ..... | 4 65   |
| 166                        | Females. }  |        | 2       | Females. }                           | 1 70   | 1       | Male .....  | 4 80   |
| 194                        | Males ... } | 60     | 62      | Males ... }                          |        | 84      | Males ..... | 5 00   |
| 42                         | Females. }  |        | 21      | Females. }                           | 1 75   | 3       | Males ..... | 5 25   |
| 2                          | Males ... } | 62½    | 3,049   | Males ... }                          |        | 2       | Males ..... | 5 50   |
| 91                         | Females. }  |        | 107     | Males .....                          | 1 80   | 1       | Male .....  | 5 65   |
| 98                         | Males ... } | 65     | 89      | Males .....                          | 1 90   | 1       | Male .....  | 5 75   |
| 17                         | Females. }  |        | 726     | Males .....                          | 1 95   | 3       | Males ..... | 5 83   |
| 8                          | Males ... } | 70     | 23      | Females. }                           | 2 00   | 14      | Males ..... | 6 00   |
| 522                        | Females. }  |        | 3,607   | Males ... }                          |        | 1       | Male .....  | 6 37   |
| 456                        | Males ... } | 75     | 75      | Males .....                          | 2 05   | 1       | Male .....  | 6 41   |
| 174                        | Females. }  |        | 280     | Males .....                          | 2 10   | 4       | Males ..... | 6 50   |
| 96                         | Males ... } | 80     | 246     | Males .....                          | 2 12½  | 1       | Male .....  | 6 66   |
| 245                        | Females. }  |        | 7       | Males .....                          | 2 15   | 1       | Male .....  | 7 00   |
| 128                        | Males ... } | 85     | 1,299   | Males .....                          | 2 25   | 4       | Males ..... | 8 00   |
| 389                        | Females. }  |        | 420     | Males .....                          | 2 30   | 1       | Male .....  | 8 50   |
| 151                        | Males ... } | 90     | 106     | Males .....                          | 2 35   | 1       | Male .....  | 9 58   |
| 605                        | Females. }  |        | 10      | Males .....                          | 2 40   |         |             |        |
| 1,640                      | Males ... } | 1 00   | 1       | Female...                            | 2 50   |         |             |        |
| 85                         | Females. }  |        | 17      | Males .....                          | 2 60   |         |             |        |
| 425                        | Males ... } | 1 10   | 29      | Males .....                          | 2 65   |         |             |        |
| 225                        | Males ..... | 1 12½  | 1       | Male .....                           | 2 70   |         |             |        |
| 80                         | Females...  | 1 15   |         |                                      |        |         |             |        |
| 219                        | Males ..... | 1 15   |         |                                      |        |         |             |        |
| 57                         | Females. }  | 1 20   |         |                                      |        |         |             |        |
| 116                        | Males ... } |        |         |                                      |        |         |             |        |
| 63                         | Females. }  | 1 25   |         |                                      |        |         |             |        |
| 4,400                      | Males ... } |        |         |                                      |        |         |             |        |
| Total number males .....   |             |        | 24,736  | Average daily wages of males .....   |        |         | \$1.70+     |        |
| Total number females ..... |             |        | 3,577   | Average daily wages of females ..... |        |         | .82+        |        |

TABLE NO. 82.—Showing by Occupation or Class of Industry the Number of Male and Female Employes 16 Years of Age and Under receiving each given rate of Wages, and the average Wages per Day paid in each Class of Manufacturing Industries in 52 Cities and Towns reported by Special Canvassers. (For list of places canvassed see page 219.)

| Class of Industry.       | Sex.    | Wages per Day. |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        | Total Number. | Average Daily Wages. |        |            |        |        |            |        |         |        |
|--------------------------|---------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------|--------|--------|--------|--------|--------|---------------|----------------------|--------|------------|--------|--------|------------|--------|---------|--------|
|                          |         | \$0.17         | \$0.20 | \$0.25 | \$0.30 | \$0.35 | \$0.40 | \$0.43 | \$0.45 | \$0.50 | \$0.55 | \$0.60 | \$0.63 1/2 | \$0.65 | \$0.67 | \$0.70 | \$0.75 | \$0.80 |               |                      | \$0.85 | \$0.87 1/2 | \$0.90 | \$1.00 | \$1.12 1/2 | \$1.17 | \$1.25  | \$1.38 |
| Total                    | Total   | 5,826          | 6,674  | 108    | 5      | 230    | 11     | 9      | 577    | 7      | 237    | 50     | 25         | 12     | 80     | 27 1/2 | 130    | 43     | 7             | 70                   | 104    | 11         | 120    | 1      | 8          | 2,278  | \$0.60+ |        |
|                          | Females | 2,402          | 2,232  | 36     | 1      | 46     | ...    | 4      | 54     | ...    | 48     | ...    | 3          | 1      | 32     | 2      | 2      | 1      | 11            | ...                  | ...    | ...        | ...    | ...    | ...        | 300    | 47+     |        |
|                          | Males   | 3,424          | 4,442  | 72     | 4      | 184    | 11     | 5      | 323    | 7      | 180    | 50     | 25         | 9      | 79     | 240    | 128    | 41     | 6             | 50                   | 104    | 11         | 120    | 1      | 8          | 1,980  | 63+     |        |
| Agricultural implements  | Males   |                |        |        |        |        |        |        | 1      |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Baskets                  | Females |                |        | 6      | 4      |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        | 1          |        |        |            |        |         |        |
|                          | Males   |                |        | 5      | 16     |        |        |        | 10     |        | 3      |        |            |        |        |        |        | 5      |               |                      |        | 9          |        |        |            |        |         |        |
| Bed-springs              | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Beer                     | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Beer-pumps               | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Blank books              | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Boilers                  | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Boots and shoes          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Boxes                    | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        | 3      | 2      |        |        |        | 45     |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Females |                |        | 57     |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Brick and tile           | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Brooms                   | Males   |                |        |        |        |        |        |        | 19     | 2      |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Building stone           | Males   |                |        |        |        |        |        |        | 12     |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        | 5      |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Candy and confectionery  | Females |                |        |        |        |        |        |        | 1      |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        | 1      |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Canned goods             | Females |                |        |        |        |        |        |        | 14     |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Carriages                | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Castings and machinery   | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Chemicals, etc.          | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Churns and refrigerators | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Cigars and tobacco       | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Clothing                 | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Cooperage                | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Corselets                | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Crackers                 | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Curtain fixtures         | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
| Elbows                   | Females |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |
|                          | Males   |                |        |        |        |        |        |        |        |        |        |        |            |        |        |        |        |        |               |                      |        |            |        |        |            |        |         |        |

TABLE No. 82.—Continued.

| Class of Industry.                         | Sex.         | Wages per Day. |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Total Number. | Average Daily Wages. |
|--|--------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|----------------------|
|  |              | \$17.          | \$18. | \$19. | \$20. | \$21. | \$22. | \$23. | \$24. | \$25. | \$26. | \$27. | \$28. | \$29. | \$30. | \$31. | \$32. |               |                      |
| Electrical apparatus.....                  | Males.....   | 1              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.50.              |
| Engines.....                               | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.38.              |
| Extracts and perfumes.....                 | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.25.              |
| Felt-goods.....                            | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.17.              |
| Files.....                                 | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.12½.             |
| Fire-kindlers.....                         | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$1.00.              |
| Flour and feed.....                        | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.90.              |
| Fruit evaporating.....                     | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.87½.             |
| Fur goods.....                             | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.85.              |
| Furniture.....                             | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.80.              |
| Gas fixtures.....                          | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.75.              |
| Hair goods.....                            | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.70.              |
| Handles.....                               | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.67.              |
| Hardware.....                              | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.65.              |
| Harness.....                               | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.62½.             |
| Hoop.....                                  | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.60.              |
| Knit goods.....                            | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.55.              |
| Locks and scales.....                      | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.50.              |
| Locomotives and cars.....                  | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.45.              |
| Lumber, shingles and salt.....             | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.43.              |
| Marble table tops.....                     | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.40.              |
| Matches.....                               | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.37.              |
| Mining.....                                | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.35.              |
| Optical instruments.....                   | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.33.              |
| Paper.....                                 | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.30.              |
| Plas.....                                  | Females..... |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.25.              |
| Playing mills, sash, doors and blinds..... | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             | \$0.17.              |
| Pulp.....                                  | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Rezzalia.....                              | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Screen doors.....                          | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Snow plays.....                            | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Soup and Potash.....                       | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Staves and heading.....                    | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Stoves and Ranges.....                     | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Straw goods.....                           | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |
| Suspenders and braces.....                 | Males.....   |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1             |                      |

[illegible]

Table No. 33 shows the result of the work of special canvassers in the following cities, towns and villages: Adrian, Albion, Alpena, Ann Arbor, Au Sable and Oscoda, Bay City, Big Rapids, Blissfield, Bronson, Buchanan, Calumet, Coldwater, Detroit, Dowagiac, East Saginaw, East Tawas, Escanaba, Franklin, Grand Haven, Grand Rapids, Hancock, Hanover, Harbor Springs, Hillsdale, Holland, Houghton, Howell, Jackson, Lakeside, Lansing, Lowell, Mason, Midland, Monroe, Montague, Muskegon, Niles, Port Huron, Reed City, Saginaw, Schoolcraft, St. Ignace, St. Joseph, St. Louis, Tawas City, Traverse City, West Bay City, Whitehall, White Pigeon, Wyandotte and Ypsilanti. It will be noticed that the towns of Calumet and St. Ignace reported business houses employing labor, but no manufacturing industries, while Corunna, Trenton and Zilwaukee report manufacturing industries, but no other business,

TABLE NO. 33.—Showing Class of Business; Number of Business Houses in each class employing labor; Sanitary Condition; Number of Hours' work per day; Sex of Employees; Total Number of Employees; Number over 16 years of age; Number 16 years of age and under; Nativity; Civil Condition; Number owning homes; Number renting homes; Number boarding; Number living with parents; Number paid weekly, semi-monthly, monthly and irregularly; Number having Money in Bank or at Interest; Number of Apprentices; Number paid all Cash and Number paid part in Store Orders, as reported by Special Canvassers relating to the Business Houses (other than manufacturing) in the 51 cities, villages and towns named on the preceding page.

| Class of Business.                | Sanitary Condition. |       | Hrs per Day. | Number of Employees. |               | Nativity.             |                                 | Civil Condition.                       |                           | Number of Employees |                           |                         |                          |                      |                       |                         |                         |                           |                       |                       |                           |                       |                  |                            |                           |               |
|-----------------------------------|---------------------|-------|--------------|----------------------|---------------|-----------------------|---------------------------------|--|---------------------------|---------------------|---------------------------|-------------------------|--------------------------|----------------------|-----------------------|-------------------------|-------------------------|---------------------------|-----------------------|-----------------------|---------------------------|-----------------------|------------------|----------------------------|---------------------------|---------------|
|                                   | (Good.              | Poor. |              | Sex.                 | Total Number. | Over 16 Years of Age. | Sixteen Years of Age and under. | Native.                                | Foreign.                  | Married.            | Single.                   | Owning Homes.           | Renting Homes.           | Boarding.            | Living with Parents.  | Paid Weekly.            | Paid Semi-monthly.      | Paid Monthly.             | Paid Irregularly.     | Having Money in Bank. | Having Money at Interest. | Apprentices.          | Paid all Cash.   | Paid part in Store Orders. |                           |               |
|                                   |                     |       |              |                      |               |                       |                                 |  |                           |                     |                           |                         |                          |                      |                       |                         |                         |                           |                       |                       |                           |                       |                  |                            |                           |               |
| Total, State.....                 | 4391                | 4130  | 233          | 81                   | 10            | 40                    |                                 | (T. 1. 26,052<br>F. 4,295<br>M. 21,757 | 25,006<br>4,184<br>20,822 | 986<br>111<br>875   | 15,137<br>2,744<br>12,393 | 8,007<br>1,107<br>6,900 | 9,764<br>3,704<br>10,174 | 3,812<br>75<br>3,737 | 5,121<br>143<br>4,978 | 9,334<br>2,424<br>6,910 | 4,833<br>1,403<br>3,430 | 17,097<br>2,068<br>14,104 | 2,029<br>347<br>1,682 | 5,504<br>822<br>4,772 | 300<br>57<br>243          | 1,747<br>103<br>1,584 | 548<br>62<br>498 | 37<br>7<br>30              | 25,684<br>4,189<br>21,505 | 51<br>9<br>42 |
| ADRIAN.                           |                     |       |              |                      |               |                       |                                 |  |                           |                     |                           |                         |                          |                      |                       |                         |                         |                           |                       |                       |                           |                       |                  |                            |                           |               |
| Agricultural imple-<br>ments..... | 2                   | 2     |              |                      | 12            |                       |                                 | 3                                      | 3                         |                     | 3                         | 1                       | 1                        | 1                    |                       |                         | 1                       | 1                         | 1                     | 2                     |                           |                       | 1                |                            |                           | 3             |
| Bakeries.....                     | 3                   | 3     |              |                      | 12            |                       |                                 | 11                                     | 10                        | 1                   | 6                         | 5                       | 6                        | 5                    | 8                     | 10                      | 4                       | 2                         | 11                    |                       |                           |                       |                  |                            |                           | 11            |
| Banking.....                      | 4                   | 4     |              |                      | 8             | 53                    |                                 | 9                                      | 9                         |                     | 9                         |                         | 3                        | 0                    | 2                     | 2                       |                         | 5                         |                       | 9                     |                           | 4                     |                  |                            |                           | 9             |
| Barber shops.....                 | 5                   | 5     |              |                      | 12            | 51                    |                                 | 7                                      | 6                         | 1                   |                           |                         | 7                        |                      |                       |                         | 3                       | 4                         | 7                     |                       |                           | 1                     |                  |                            |                           | 7             |
| Books and stationery.....         | 2                   | 2     |              |                      | 11            |                       |                                 | 1                                      | 1                         |                     | 1                         |                         | 1                        | 1                    |                       |                         | 1                       | 1                         | 1                     | 2                     |                           |                       |                  |                            |                           | 2             |
| Boots and shoes.....              | 9                   | 9     |              |                      | 12            | 6                     |                                 | 4                                      | 4                         |                     | 2                         | 2                       | 2                        | 2                    |                       |                         | 1                       | 2                         | 4                     |                       |                           |                       | 1                |                            |                           | 4             |
| Cigars and tobacco.....           | 5                   | 5     |              |                      | 11            | 6                     |                                 | 18                                     | 16                        | 2                   | 10                        | 10                      | 6                        | 3                    | 6                     |                         | 2                       | 6                         | 11                    | 7                     |                           | 3                     |                  |                            |                           | 16            |
| City water works.....             | 1                   | 1     |              |                      | 11            |                       |                                 | 8                                      | 8                         |                     | 6                         | 2                       | 4                        | 2                    | 4                     |                         | 2                       |                           | 8                     |                       |                           |                       |                  |                            |                           | 8             |
| Clothing stores.....              | 6                   | 6     |              |                      | 10            | 14                    |                                 | 12                                     | 12                        |                     | 9                         | 3                       | 12                       | 2                    | 2                     |                         | 2                       | 7                         | 12                    | 1                     |                           | 4                     |                  |                            |                           | 12            |
|                                   |                     |       |              |                      |               |                       |                                 | 21                                     | 21                        |                     | 12                        | 9                       | 16                       | 3                    | 3                     |                         | 5                       | 3                         | 20                    |                       |                           | 6                     |                  | 1                          |                           | 21            |

|   |    |    |       |            |          |          |          |         |         |          |        |          |          |         |               |      |
|---|----|----|-------|------------|----------|----------|----------|---------|---------|----------|--------|----------|----------|---------|---------------|------|
| Coal and wood yards.....                        | 2  | 2  | 10    | M.         | 11       | 11       | 5        | 6       | 5       | 6        | 6      | 2        | 2        | 1       | 11            | 11   |
| Commission stores.....                          | 1  | 1  | 10    | M.         | 2        | 2        | 2        | 1       | 1       | 1        | 1      | 1        | 1        | 2       | 2             | 2    |
| Crockery.....                                   | 1  | 1  | 10    | M.         | 1        | 1        | 1        | 1       | 1       | 1        | 1      | 1        | 1        | 1       | 1             | 1    |
| Dress-making.....                               | 1  | 1  | 9     | F.         | 7        | 7        | 7        | 7       | 7       | 7        | 7      | 7        | 7        | 7       | 7             | 7    |
| Drugs.....                                      | 5  | 5  | 14 30 | M.         | 12       | 10       | 2        | 11      | 1       | 11       | 1      | 4        | 7        | 5       | 4             | 10 2 |
| Dry goods.....                                  | 6  | 6  | 11 30 | { F.<br>M. | 17<br>19 | 17<br>18 | 14<br>16 | 3<br>3  | 2<br>7  | 15<br>12 | 1      | 8<br>4   | 8<br>5   | 4<br>5  | 6<br>17<br>19 | 17   |
| Electro-plating.....                            | 2  | 2  | 10    | { F.<br>M. | 6<br>15  | 6<br>15  | 5<br>15  | 1<br>13 | 2<br>9  | 4<br>6   | 2<br>8 | 1<br>4   | 3<br>3   | 6<br>15 | 6<br>15       | 6    |
| Express Companies.....                          | 1  | 1  | 10    | M.         | 5        | 5        | 4        | 1       | 2       | 3        | 2      | 1        | 3        | 3       | 5             | 5    |
| Flour and feed stores..                         | 1  | 1  | 16    | M.         | 1        | 1        | 1        | 1       | 1       | 1        | 1      | 1        | 1        | 1       | 1             | 1    |
| Furniture stores.....                           | 2  | 2  | 12    | M.         | 8        | 8        | 7        | 1       | 5       | 3        | 3      | 3        | 2        | 2       | 2             | 8    |
| Gas companies.....                              | 1  | 1  | 10    | M.         | 11       | 11       | 11       | 11      | 10      | 1        | 6      | 4        | 1        | 11      | 11            | 11   |
| Groceries.....                                  | 12 | 12 | 15 20 | { F.<br>M. | 2<br>30  | 1<br>26  | 2<br>29  | 1<br>8  | 2<br>19 | 2<br>11  | 4<br>4 | 1<br>5   | 10<br>10 | 2<br>2  | 2<br>30       | 2    |
| Hardware.....                                   | 4  | 4  | 10    | M.         | 15       | 15       | 13       | 2       | 10      | 5        | 5      | 4        | 1        | 5       | 11            | 15   |
| Harness.....                                    | 2  | 2  | 8 30  | M.         | 4        | 4        | 3        | 1       | 2       | 2        | 2      | 1        | 1        | 4       | 4             | 4    |
| Hats and caps.....                              | 3  | 3  | 13    | M.         | 3        | 3        | 3        | 3       | 3       | 3        | 3      | 3        | 3        | 3       | 3             | 3    |
| Hedges.....                                     | 1  | 1  | 10    | M.         | 23       | 26       | 23       | 23      | 23      | 3        | 10     | 7        | 7        | 2       | 26            | 26   |
| Hides and pelts.....                            | 1  | 1  | 12    | M.         | 1        | 1        | 1        | 1       | 1       | 1        | 1      | 1        | 1        | 1       | 1             | 1    |
| Hotels, boarding houses<br>and restaurants..... | 9  | 8  | 11 40 | { F.<br>M. | 33<br>21 | 35<br>21 | 27<br>18 | 8<br>3  | 1<br>5  | 35<br>16 | 1      | 36<br>19 | 8<br>9   | 5<br>3  | 36<br>21      | 36   |
| Jewelry stores.....                             | 4  | 4  | 10 30 | M.         | 6        | 6        | 5        | 2       | 2       | 4        | 1      | 3        | 2        | 5       | 2             | 6    |
| Laundries.....                                  | 2  | 1  | 10    | { F.<br>M. | 2<br>3   | 2<br>3   | 2<br>3   | 2<br>3  | 2<br>1  | 2<br>2   | 1<br>2 | 2<br>2   | 2<br>3   | 2<br>3  | 2<br>3        | 2    |
| Livery stables.....                             | 4  | 4  | 12 20 | M.         | 17       | 17       | 14       | 3       | 11      | 6        | 3      | 9        | 4        | 1       | 17            | 17   |
| Markets.....                                    | 1  | 1  | 14    | { F.<br>M. | 1<br>1   | 1<br>1   | 1<br>1   | 1       | 1       | 1        | 1      | 1        | 1        | 1       | 1             | 1    |
| Meat markets.....                               | 3  | 3  | 11 36 | M.         | 5        | 5        | 4        | 1       | 4       | 1        | 2      | 2        | 1        | 5       | 1             | 4    |
| Millinery stores.....                           | 4  | 4  | 11 20 | F.         | 12       | 12       | 12       | 12      | 12      | 12       | 12     | 12       | 12       | 12      | 12            | 12   |



TABLE NO. 83.—Continued.

| Class of Business.                     | Number in each Class. |       | Sanitary Condition, Day. |          | Hrs per Condition, Day. | Sex.             | Number of Employees. |                       |                                 | Nativity. |          | Civil Condition. |            | Number of Employees |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|--------------------------|----------|-------------------------|------------------|----------------------|-----------------------|---------------------------------|-----------|----------|------------------|------------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Good.                 | Poor. | Hours.                   | Minutes. |                         |                  | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single.    | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| ADRIAN—Continued:                      |                       |       |                          |          |                         |                  |                      |                       |                                 |           |          |                  |            |                     |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Music stores.....                      | 1                     | 1     | 8                        |          |                         | M.               | 1                    | 1                     |                                 |           | 1        |                  | 1          |                     |                | 1         |                      |              |                    |               |                   |                       |                           |              | 1              |                            |
| Notions and fancy goods.....           | 2                     | 2     | 10                       |          |                         | { F. }<br>{ M. } | 3<br>6               | 3<br>5                | 1                               | 2         | 1        | 4                | 3          | 1                   | 2              | 1         | 2                    | 3            | 6                  |               |                   |                       |                           |              | 3              |                            |
| Paper store.....                       | 1                     | 1     |                          |          |                         | M.               | 3                    | 3                     |                                 | 3         |          | 1                | 2          |                     |                | 3         |                      | 3            |                    |               |                   |                       |                           |              | 3              |                            |
| Printing and publishing houses.....    | 3                     | 3     | 9                        | 57       |                         | M.               | 29                   | 24                    | 5                               | 28        | 1        | 9                | 20         | 4                   | 7              | 12        | 6                    | 25           | 4                  |               |                   | 7                     | 3                         |              | 29             |                            |
| Railroading.....                       | 2                     | 2     | 11                       | 30       |                         | M.               | 36                   | 36                    |                                 | 34        | 2        | 22               | 14         | 5                   | 16             | 11        | 4                    |              |                    | 36            |                   | 6                     | 6                         |              | 36             |                            |
| Sewing machines.....                   | 1                     | 1     | 10                       |          |                         | { F. }<br>{ M. } | 1<br>4               | 1<br>4                |                                 | 1<br>3    | 1        | 3                | 1          | 1                   | 2              | 1         |                      | 1            |                    |               |                   |                       |                           |              | 1              |                            |
| Stone cutting.....                     | 1                     | 1     | 10                       |          |                         | M.               | 3                    | 3                     |                                 | 1         | 2        | 2                | 1          | 1                   | 1              |           | 1                    | 3            |                    |               | 1                 |                       |                           |              | 3              |                            |
| Tailoring.....                         | 2                     | 2     | 10                       |          |                         | { F. }<br>{ M. } | 4<br>6               | 4<br>6                |                                 | 2<br>1    | 2        | 1                | 3          |                     | 1              | 2         |                      | 3            | 4                  |               |                   |                       |                           |              | 4              |                            |
| Telegraph and telephone Companies..... | 2                     | 2     | 10                       | 30       |                         | { F. }<br>{ M. } | 2<br>7               | 2<br>6                | 1                               | 2<br>7    |          | 2<br>1           | 6          |                     | 1              | 5         | 2                    |              | 2                  |               |                   |                       |                           |              | 2              |                            |
| Undertaking.....                       | 1                     | 1     | 10                       |          |                         | M.               | 3                    | 3                     |                                 | 3         |          | 1                | 2          | 1                   |                |           | 2                    | 3            |                    |               |                   |                       |                           |              | 3              |                            |
| Total, city.....                       | 123                   | 123   | 3                        | 11       | 2                       | { F. }<br>{ M. } | 110<br>410           | 108<br>382            | 2<br>18                         | 89<br>347 | 21<br>61 | 9<br>238         | 101<br>201 | 6<br>108            | 4<br>102       | 51<br>111 | 49<br>88             | 80<br>272    | 25<br>6            | 5<br>120      | 5<br>7            | 15<br>61              | 6<br>21                   | 1<br>110     | 110<br>406     | 4                          |
| ALBION:                                |                       |       |                          |          |                         |                  |                      |                       |                                 |           |          |                  |            |                     |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bakeries.....                          | 1                     | 1     | 10                       |          |                         | M.               | 4                    | 4                     |                                 | 4         |          | 3                | 1          | 2                   |                | 2         |                      | 4            |                    |               |                   | 1                     |                           |              | 4              |                            |
| Banking.....                           | 3                     | 3     | 8                        |          |                         | M.               | 4                    | 4                     |                                 |           |          | 1                | 3          | 1                   |                | 1         | 2                    | 2            |                    | 2             |                   | 3                     |                           |              | 4              |                            |
| Barber shops.....                      | 2                     | 2     | 14                       |          |                         | M.               | 2                    | 2                     |                                 | 2         |          | 1                | 1          | 1                   |                | 1         |                      | 2            |                    |               |                   |                       |                           |              | 2              |                            |

|   | 4 | 4 | 10    | M.           | 7            | 7  | 7  | 5  | 2  | 3  | 1  | 2  | 1  | 7  |   | 7  |
|---|---|---|-------|--------------|--------------|----|----|----|----|----|----|----|----|----|---|----|
| Blacksmiths.....                                | 4 | 4 | 10    | M.           | 7            | 7  | 7  | 5  | 2  | 3  | 1  | 2  | 1  | 7  |   | 7  |
| Boots and shoes.....                            | 5 | 3 | 2     | 10 48        | { F. }<br>M. | 1  | 1  | 3  | 1  | 3  | 4  | 1  | 1  | 1  | 1 | 1  |
| City laborers.....                              | 1 | 1 | 16    | M.           | 20           | 20 | 10 | 18 | 2  | 2  |    |    |    | 9  |   | 9  |
| Clothing.....                                   | 3 | 3 | 12 24 | M.           | 5            | 5  | 4  | 1  | 3  | 2  |    | 2  | 1  | 5  | 1 | 20 |
| Coal and wood yards.....                        | 3 | 3 | 10    | { F. }<br>M. | 1            | 1  | 1  | 3  | 1  | 1  | 1  | 1  | 1  | 1  |   | 5  |
| Contractors and build-<br>ers.....              | 3 | 3 | 10    | M.           | 39           | 39 | 36 | 3  | 5  | 12 | 22 | 3  | 2  | 36 |   | 36 |
| Drugs.....                                      | 4 | 4 | 12    | M.           | 5            | 5  | 5  | 2  | 3  | 1  |    | 2  | 2  | 5  | 3 | 5  |
| Dry goods.....                                  | 4 | 4 | 12    | { F. }<br>M. | 4            | 4  | 4  | 4  | 4  |    |    | 5  | 4  | 4  | 1 | 4  |
| Groceries.....                                  | 9 | 9 | 12    | M.           | 16           | 15 | 1  | 5  | 11 | 4  | 2  | 1  | 9  | 12 | 2 | 16 |
| Hardware.....                                   | 3 | 3 | 11 36 | M.           | 15           | 15 | 13 | 2  | 9  | 6  | 3  | 2  | 4  | 15 | 5 | 15 |
| Harness.....                                    | 2 | 1 | 1     | 10           | M.           | 3  | 3  | 1  | 1  | 2  | 1  |    | 2  | 3  |   | 3  |
| Hotels, boarding houses<br>and restaurants..... | 3 | 2 | 1     | 10           | { F. }<br>M. | 21 | 21 | 8  | 5  | 16 |    | 21 | 21 | 21 |   | 21 |
| Jewelry stores.....                             | 3 | 3 | 10 40 | M.           | 3            | 3  | 3  |    | 3  |    |    |    | 3  | 2  | 1 | 2  |
| Junk stores, wholesale.                         | 1 |   | 1     | 10           | { F. }<br>M. | 4  | 4  |    |    |    |    |    |    | 4  |   | 4  |
| Livery stables.....                             | 2 | 2 | 14    | M.           | 2            | 2  | 1  | 1  | 2  |    |    | 1  | 1  | 2  |   | 2  |
| Marble monuments.....                           | 1 | 1 | 10    | M.           | 2            | 2  | 2  | 1  | 1  |    | 1  | 1  | 1  | 2  |   | 2  |
| Meat market.....                                | 2 | 1 | 1     | 10 48        | M.           | 5  | 5  | 4  | 1  |    | 4  | 1  |    | 5  |   | 5  |
| Millinery stores.....                           | 3 | 3 | 10    | F.           | 6            | 6  | 6  | 1  | 5  |    | 1  | 2  | 3  | 6  |   | 6  |
| Musical merchandise.....                        | 1 | 1 | 12    | { F. }<br>M. | 1            | 1  | 1  |    | 1  |    | 1  |    | 1  | 1  | 1 | 1  |
| News depots.....                                | 1 | 1 | 13    | M.           | 4            |    | 4  |    | 4  |    |    | 4  | 4  | 4  |   | 4  |
| Notions and fancy goods                         | 1 | 1 | 12    | { F. }<br>M. | 1            | 1  | 1  |    | 1  |    | 1  | 1  | 1  | 1  |   | 1  |
| Painting & decorating.                          | 1 | 1 | 10    | M.           | 1            | 1  | 1  | 1  |    | 1  |    |    | 1  | 1  |   | 1  |
| Peidlers.....                                   | 1 | 1 | 10    | M.           | 10           | 10 |    |    |    |    |    |    |    |    |   | 10 |
| Postoffice.....                                 | 1 | 1 | 12    | F.           | 2            | 2  | 2  |    | 2  |    |    | 2  |    | 2  |   | 2  |

TABLE No. 33.—Continued.

| Class of Business.            | Number in each Class. |       | Sanitary Condition. |          | Hrs per Day.     |               | Number of Employés.   |                                 |           | Nativity. |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|-------------------------------|-----------------------|-------|---------------------|----------|------------------|---------------|-----------------------|---------------------------------|-----------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|                               | Good.                 | Poor. | Hours.              | Minutes. | Sex.             | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|                               |                       |       |                     |          |                  |               |                       |                                 |           |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| ALBION—Continued:             |                       |       |                     |          |                  |               |                       |                                 |           |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Print'g and pub. houses       | 2                     | 1     | 10                  |          | M.               | 10            | 10                    |                                 | 9         | 1         | 2        | 8                |               | 2                  |           | 7                    | 1            | 5                  | 5             |                   |                       |                           |              |                | 10                         |
| Railroading                   | 2                     | 2     | 10                  |          | M.               | 23            | 23                    |                                 | 7         | 16        | 20       | 3                | 8             | 10                 | 2         |                      | 1            |                    |               | 23                |                       |                           |              |                | 23                         |
| Soap, wholesale               | 1                     | 1     | 10                  |          | F.               | 1             | 1                     |                                 | 1         |           |          | 1                |               |                    |           |                      | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
| Tailors                       | 1                     | 1     | 10                  |          | { F. }<br>{ M. } | 6<br>6        | 6<br>6                |                                 | 6<br>1    |           | 2<br>4   | 2<br>4           | 2<br>2        | 2<br>2             | 2<br>2    | 2                    | 4            | 6<br>6             | 6             |                   |                       |                           |              |                | 6<br>6                     |
| Telegraphing                  | 1                     | 1     | 12                  |          | M.               | 2             | 2                     |                                 | 2         |           | 1        | 1                | 1             |                    |           |                      | 1            |                    | 2             |                   |                       |                           |              | 2              |                            |
| Total, city                   | 75                    | 68    | 6 10 25             |          | { F. }<br>{ M. } | 48<br>227     | 48<br>221             | 6                               | 38<br>108 | 8<br>57   | 8<br>140 | 36<br>85         |               | 3<br>45            | 59        | 27<br>47             | 14<br>42     | 46<br>180          | 5             | 2<br>41           |                       | 1<br>16                   | 1            |                | 48<br>227                  |
| ALPENA:                       |                       |       |                     |          |                  |               |                       |                                 |           |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bakeries                      | 2                     | 2     | 11                  |          | { F. }<br>{ M. } | 2<br>4        | 2<br>4                |                                 | 2<br>2    | 2<br>1    | 3        | 2                |               |                    |           | 2<br>2               | 2<br>2       | 2<br>4             |               |                   |                       |                           |              |                | 2<br>2                     |
| Banking                       | 2                     | 2     | 10 40               |          | M.               | 9             | 9                     |                                 | 8         | 1         | 5        | 4                | 4             |                    |           | 3                    | 2            | 3                  | 6             |                   | 3                     | 1                         |              | 9              |                            |
| Barber shops                  | 2                     | 2     | 14                  |          | M.               | 4             | 4                     |                                 | 2         | 2         | 3        | 1                |               | 3                  |           | 1                    |              | 4                  |               |                   |                       |                           |              | 4              |                            |
| Blacksmiths                   | 4                     | 4     | 10                  |          | M.               | 10            | 10                    |                                 | 1         | 9         | 10       |                  | 4             | 6                  |           |                      |              | 10                 |               |                   |                       |                           |              | 10             |                            |
| Books and stationery          | 1                     | 1     | 14                  |          | M.               | 1             | 1                     |                                 | 1         |           |          | 1                |               |                    |           |                      | 1            | 1                  | 1             |                   |                       |                           |              | 1              |                            |
| Booming and rafting logs      | 1                     | 1     | 11                  |          | { F. }<br>{ M. } | 1<br>138      | 1<br>138              |                                 | 1<br>82   | 1<br>56   | 1<br>60  | 78               |               | 6<br>54            | 6         | 74                   | 4            |                    | 138           |                   |                       |                           |              | 138            |                            |
| Boots and shoes               | 6                     | 6     | 12 20               |          | M.               | 11            | 11                    |                                 | 4         | 7         | 9        | 2                | 8             | 2                  | 1         |                      |              | 11                 |               |                   |                       | 1                         |              | 11             |                            |
| City and water-works laborers | 2                     | 2     | 10 51               |          | M.               | 7             | 7                     |                                 | 4         | 3         | 7        |                  | 5             | 2                  |           |                      |              |                    |               | 7                 |                       |                           |              | 7              |                            |
| Contractors & builders        | 2                     | 2     | 10                  |          | M.               | 15            | 15                    |                                 | 2         | 12        | 10       | 5                | 8             | 4                  | 3         |                      |              | 15                 |               |                   | 3                     |                           |              | 15             |                            |

|  |    |    |       |    |     |     |    |     |     |     |     |     |     |    |     |     |    |     |     |
|--|----|----|-------|----|-----|-----|----|-----|-----|-----|-----|-----|-----|----|-----|-----|----|-----|-----|
| Clothing stores.....                               | 5  | 5  | 13 40 | F. | 12  | 11  | 1  | 6   | 6   | 4   | 8   | 3   | 3   | 6  | 10  | 2   | 1  | 2   | 12  |
| Draying.....                                       | 2  | 2  | 11 25 | M. | 7   | 7   | 1  | 6   | 6   | 1   | 6   | 1   | 1   | 6  | 7   | 1   | 1  | 7   | 7   |
| Drugs.....   | 4  | 4  | 14    | M. | 4   | 4   | 3  | 1   | 1   | 1   | 3   | 1   | 1   | 2  | 3   | 1   | 1  | 4   | 4   |
| Dry-goods.....                                     | 5  | 5  | 13 35 | F. | 15  | 15  | 6  | 9   | 9   | 4   | 15  | 2   | 2   | 2  | 13  | 2   | 1  | 15  | 15  |
|  |    |    | { M.  |    | 9   | 8   | 1  | 7   | 2   | 4   | 5   | 2   | 2   | 2  | 3   | 8   | 1  | 9   | 9   |
| Fishing.....                                       | 1  | 1  | 12    | M. | 3   | 3   | 3  | 1   | 2   | 1   | 2   | 1   | 1   | 3  | 3   | 3   | 1  | 3   | 3   |
| Fruits & confectionery.....                        | 1  | 1  | 15    | F. | 1   | 1   | 1  | 1   | 2   | 1   | 1   | 1   | 1   | 1  | 1   | 1   | 1  | 1   | 1   |
|  |    |    | { M.  |    | 3   | 3   | 3  | 1   | 2   | 2   | 1   | 1   | 1   | 1  | 1   | 1   | 1  | 3   | 3   |
| Furniture stores.....                              | 2  | 2  | 14    | M. | 3   | 3   | 3  | 3   | 3   | 3   | 3   | 3   | 1   | 1  | 3   | 3   | 1  | 3   | 3   |
| Gas companies.....                                 | 1  | 1  | 10    | M. | 12  | 12  | 12 | 12  | 12  | 1   | 11  | 1   | 1   | 11 | 12  | 12  | 1  | 12  | 12  |
| Groceries.....                                     | 17 | 17 | 14    | M. | 43  | 39  | 4  | 18  | 25  | 14  | 29  | 10  | 7   | 16 | 28  | 3   | 1  | 40  | 40  |
| Hardware.....                                      | 3  | 3  | 12    | M. | 14  | 14  | 7  | 7   | 7   | 8   | 6   | 4   | 5   | 2  | 3   | 14  | 2  | 14  | 14  |
| Harness.....                                       | 3  | 3  | 10    | M. | 4   | 4   | 4  | 4   | 3   | 1   | 3   | 1   | 1   | 1  | 3   | 3   | 1  | 4   | 4   |
| Hotels, board'g houses }<br>and restaurants..... { | 10 | 10 | 12    | F. | 43  | 43  | 11 | 32  | 1   | 42  | 42  | 43  | 43  | 43 | 43  | 43  | 43 | 43  | 43  |
|  |    |    | { M.  |    | 30  | 30  | 17 | 13  | 6   | 6   | 24  | 1   | 1   | 29 | 30  | 30  | 29 | 30  | 30  |
| Jewelry stores.....                                | 1  | 1  | 14    | M. | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2  | 2   | 2   |
| Livery stables.....                                | 3  | 3  | 12 40 | M. | 6   | 6   | 5  | 1   | 3   | 3   | 3   | 3   | 3   | 3  | 3   | 3   | 3  | 3   | 3   |
| Markets.....                                       | 1  | 1  | 10    | M. | 6   | 6   | 6  | 6   | 6   | 5   | 1   | 5   | 1   | 1  | 6   | 6   | 1  | 6   | 6   |
| Meat markets.....                                  | 5  | 4  | 12 36 | M. | 13  | 12  | 1  | 3   | 9   | 4   | 9   | 4   | 9   | 9  | 11  | 2   | 1  | 11  | 11  |
| Millinery stores.....                              | 1  | 1  | 10    | F. | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2  | 2   | 2   |
| Notions and fancy goods                            | 2  | 2  | 14    | F. | 1   | 1   | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1  | 1   | 1   | 1  | 1   | 1   |
| Painting, paper hanging<br>and decorating.....     | 2  | 2  | 10    | M. | 3   | 3   | 3  | 3   | 3   | 2   | 1   | 2   | 1   | 1  | 3   | 3   | 1  | 3   | 3   |
| Plumbing.....                                      | 1  | 1  | 10    | M. | 6   | 6   | 6  | 6   | 4   | 2   | 1   | 2   | 1   | 2  | 6   | 6   | 1  | 6   | 6   |
| Printing and publish-<br>ing houses..... {         | 3  | 3  | 10    | F. | 1   | 1   | 1  | 1   | 3   | 2   | 1   | 1   | 1   | 1  | 1   | 1   | 1  | 1   | 1   |
|  |    |    | { M.  |    | 8   | 8   | 5  | 5   | 5   | 2   | 6   | 1   | 1   | 5  | 8   | 8   | 5  | 8   | 8   |
| Tailoring.....                                     | 2  | 2  | 10    | F. | 3   | 3   | 3  | 1   | 2   | 3   | 3   | 3   | 3   | 1  | 3   | 3   | 1  | 3   | 3   |
|  |    |    | { M.  |    | 5   | 5   | 5  | 5   | 5   | 3   | 2   | 3   | 3   | 2  | 5   | 5   | 2  | 5   | 5   |
| Total, city.....                                   | 97 | 96 | 11 14 | F. | 69  | 69  | 20 | 49  | 2   | 67  | 114 | 55  | 49  | 20 | 65  | 3   | 1  | 89  | 89  |
|  |    |    | { M.  |    | 384 | 387 | 7  | 194 | 199 | 172 | 222 | 114 | 187 | 37 | 201 | 163 | 26 | 386 | 386 |

TABLE NO. 83.—Continued.

| Class of Business. | Number in each Class. |  | Sanitary Condition. |  | Hrs per Day. |  | Sex. | Number of Employés. |  |          | Nativity. |               | Civil Condition. |  | Number of Employés    |  |                                 |  |         |  |          |  |          |  |         |  |               |  |                |  |           |  |                      |  |              |  |                    |  |               |  |                   |  |                       |  |                           |  |              |  |                |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|-----------------------|--|---------------------|--|--------------|--|------|---------------------|--|----------|-----------|---------------|------------------|--|-----------------------|--|---------------------------------|--|---------|--|----------|--|----------|--|---------|--|---------------|--|----------------|--|-----------|--|----------------------|--|--------------|--|--------------------|--|---------------|--|-------------------|--|-----------------------|--|---------------------------|--|--------------|--|----------------|--|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                    | Number                |  | Fair.               |  | Poor.        |  |      | Hours.              |  | Minutes. |           | Total Number. |                  |  | Over 16 years of age. |  | Sixteen years of age and under. |  | Native. |  | Foreign. |  | Married. |  | Single. |  | Owning Homes. |  | Renting Homes. |  | Boarding. |  | Living with Parents. |  | Paid Weekly. |  | Paid Semi-monthly. |  | Paid Monthly. |  | Paid Irregularly. |  | Having Money in Bank. |  | Having Money at Interest. |  | Apprentices. |  | Paid all Cash. |  | Paid part in Store Orders. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |                       |  |                     |  |              |  |      |                     |  |          |           |               |                  |  |                       |  |                                 |  |         |  |          |  |          |  |         |  |               |  |                |  |           |  |                      |  |              |  |                    |  |               |  |                   |  |                       |  |                           |  |              |  |                |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANN ARBOR:         |                       |  |                     |  |              |  |      |                     |  |          |           |               |                  |  |                       |  |                                 |  |         |  |          |  |          |  |         |  |               |  |                |  |           |  |                      |  |              |  |                    |  |               |  |                   |  |                       |  |                           |  |              |  |                |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]

TABLE NO. 33.—Continued.

| Class of Business.                           | Number in each Class. | Sanitary Condition. |       | Hrs per Day. |            | Sex. | Number of Employees. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employees |  |  |  |  |  |  |  |  |  |
|--|-----------------------|---------------------|-------|--------------|------------|------|----------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|---------------------|--|--|--|--|--|--|--|--|--|
|  |                       |                     |       |              |            |      |                      |                       |                                 |           |          |                  |         |                     |  |  |  |  |  |  |  |  |  |
|  |                       | Good.               | Fair. | Poor.        | Minutes.   |      | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. |                     |  |  |  |  |  |  |  |  |  |
| AT SABLE AND OSCODA—Continued:               |                       |                     |       |              |            |      |                      |                       |                                 |           |          |                  |         |                     |  |  |  |  |  |  |  |  |  |
| Dry Goods.....                               | 1                     | 1                   |       | 12           | M.         |      | 1                    | 1                     |                                 |           | 1        |                  |         |                     |  |  |  |  |  |  |  |  |  |
| General store.....                           | 3                     | 3                   |       | 13 46        | M.         |      | 15                   | 15                    |                                 | 12        | 3        | 5                | 10      |                     |  |  |  |  |  |  |  |  |  |
| Groceries.....                               | 8                     | 8                   |       | 12           | M.         |      | 12                   | 10                    | 2                               | 7         |          | 2                | 4       |                     |  |  |  |  |  |  |  |  |  |
| Hardware, stoves and tinware dealers.....    | 2                     | 2                   |       | 11 20        | M.         |      | 3                    | 3                     |                                 | 1         | 2        |                  | 3       |                     |  |  |  |  |  |  |  |  |  |
| Harness.....                                 | 1                     | 1                   |       | 10           | M.         |      | 4                    | 4                     |                                 | 3         | 1        |                  | 4       |                     |  |  |  |  |  |  |  |  |  |
| Hotels, boarding-houses and restaurants..... | 3                     | 3                   |       | 12           | { F.<br>M. |      | 14<br>8              | 14<br>8               |                                 | 11<br>6   | 3<br>2   |                  | 8       |                     |  |  |  |  |  |  |  |  |  |
| Meat markets.....                            | 2                     | 1                   |       | 11 2         | M.         |      | 2                    | 2                     |                                 | 2         | 2        |                  | 2       |                     |  |  |  |  |  |  |  |  |  |
| Tailoring.....                               | 1                     | 1                   |       | 13           | { F.<br>M. |      | 2<br>1               | 1<br>1                |                                 | 2<br>1    |          |                  |         |                     |  |  |  |  |  |  |  |  |  |
| Total, town.....                             | 29                    | 27                  |       | 1 11 16      | { F.<br>M. |      | 16<br>155            | 15<br>133             | 2                               | 13<br>64  | 3<br>86  |                  | 8<br>83 |                     |  |  |  |  |  |  |  |  |  |
| Big Rapids:                                  |                       |                     |       |              |            |      |                      |                       |                                 |           |          |                  |         |                     |  |  |  |  |  |  |  |  |  |
| Agricultural imple-<br>ments.....            | 1                     | 1                   |       | 12           | M.         |      | 2                    | 2                     |                                 | 2         |          |                  |         |                     |  |  |  |  |  |  |  |  |  |
| Bankers and brokers.....                     | 3                     | 3                   |       | 9 30         | M.         |      | 10                   | 10                    |                                 | 9         | 1        | 5                | 5       |                     |  |  |  |  |  |  |  |  |  |
| Barber shops and bath<br>houses.....         | 3                     | 3                   |       | 12           | M.         |      | 6                    | 6                     |                                 | 6         |          | 4                | 2       |                     |  |  |  |  |  |  |  |  |  |
| Blacksmithing and<br>horseshoeing.....       | 5                     | 3                   | 2     | 10           | M.         |      | 8                    | 8                     |                                 | 7         | 1        | 5                | 3       |                     |  |  |  |  |  |  |  |  |  |
| Boots and shoes.....                         | 8                     | 4                   | 3     | 11 27        | M.         |      | 11                   | 11                    |                                 | 5         | 3        | 4                | 4       |                     |  |  |  |  |  |  |  |  |  |
| Building stone and<br>monuments.....         | 1                     | 1                   |       | 10           | M.         |      | 1                    | 1                     |                                 |           | 1        |                  | 1       |                     |  |  |  |  |  |  |  |  |  |

|  |    |    |       |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Clothing stores.....                           | 4  | 4  | 13    | M. | 7  | 7  | 4  | 8  | 1  | 6  | 1  | 8  | 8  | 7  | 1  | 7  |
| Contractors, carpenters<br>and builders.....   | 3  | 1  | 10    | M. | 25 | 25 | 8  | 17 | 22 | 3  | 6  | 2  | 2  | 16 | 3  | 25 |
| Drugs.....                                     | 7  | 7  | 12.25 | M. | 7  | 7  | 7  | 7  | 1  | 6  | 1  | 4  | 3  | 3  | 1  | 7  |
| Dry goods.....                                 | 6  | 6  | 10.53 | F. | 5  | 5  | 4  | 1  | 1  | 4  | 1  | 3  | 1  | 2  | 1  | 5  |
| Flour, feed and grain<br>dealers.....          | 1  | 1  | 12    | M. | 13 | 13 | 12 | 4  | 5  | 8  | 3  | 5  | 2  | 4  | 9  | 13 |
| Fruit, confectionery<br>and canned goods.....  | 1  | 1  | 14    | M. | 3  | 3  | 8  | 8  | 2  | 1  | 1  | 1  | 1  | 3  | 1  | 3  |
| Furniture stores.....                          | 1  | 1  | 10    | M. | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| General stores.....                            | 1  | 1  | 11    | F. | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Groceries.....                                 | 11 | 10 | 12.52 | F. | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 2  |
| Hardware, stoves and<br>tinware dealers.....   | 5  | 5  | 10.33 | M. | 18 | 17 | 14 | 4  | 10 | 8  | 7  | 2  | 5  | 4  | 10 | 18 |
| Harness.....                                   | 2  | 2  | 9     | M. | 3  | 3  | 1  | 2  | 2  | 1  | 1  | 1  | 1  | 3  | 1  | 3  |
| Hack and 'bus line.....                        | 1  | 1  | 16    | M. | 6  | 6  | 6  | 6  | 4  | 2  | 1  | 2  | 3  | 6  | 2  | 6  |
| Hotels, board'g houses<br>and restaurants..... | 18 | 18 | 12.5  | F. | 62 | 61 | 21 | 17 | 9  | 48 | 3  | 62 | 62 | 31 | 30 | 59 |
| Jewelry stores.....                            | 3  | 3  | 11    | M. | 4  | 4  | 3  | 1  | 2  | 2  | 1  | 3  | 1  | 4  | 1  | 4  |
| Laundries.....                                 | 2  | 1  | 10    | F. | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
| Livery stables.....                            | 4  | 4  | 11.45 | M. | 8  | 7  | 4  | 4  | 3  | 5  | 2  | 4  | 1  | 4  | 4  | 8  |
| Lumber yards.....                              | 2  | 2  | 10    | M. | 16 | 16 | 8  | 8  | 5  | 10 | 4  | 1  | 10 | 8  | 8  | 16 |
| Meat markets.....                              | 3  | 3  | 11.25 | M. | 7  | 7  | 4  | 3  | 3  | 4  | 2  | 1  | 3  | 1  | 1  | 7  |
| Millinery stores.....                          | 4  | 4  | 10    | F. | 6  | 6  | 3  | 2  | 1  | 5  | 1  | 5  | 1  | 6  | 1  | 6  |
| Notions and fancy goods                        | 1  | 1  | 12    | F. | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Postoffice.....                                | 1  | 1  | 12    | F. | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Printing and publish-<br>ing houses.....       | 5  | 5  | 9.53  | F. | 7  | 7  | 6  | 1  | 2  | 2  | 1  | 2  | 3  | 1  | 1  | 7  |
| Railroading.....                               | 3  | 3  | 10.12 | M. | 47 | 47 | 15 | 32 | 29 | 18 | 19 | 11 | 10 | 2  | 47 | 47 |
| Second-hand stores.....                        | 2  | 2  | 11    | M. | 4  | 4  | 3  | 1  | 3  | 1  | 4  | 4  | 4  | 4  | 4  | 4  |



TABLE NO. 83.—Continued.

| Class of Business.                       | Sanitary Condition. |       | H's per Day. | Number of Employees. |            |               | Nativity.             |                                 | Civil Condition. |           | Number of Employees |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
|--|---------------------|-------|--------------|----------------------|------------|---------------|-----------------------|---------------------------------|------------------|-----------|---------------------|---------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--|
|  | Good.               | Fair. |              | Poor.                | Sex.       | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.          | Foreign.  | Married.            | Single. | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |  |
|  |                     |       |              |                      |            |               |                       |                                 |                  |           |                     |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
| BIG RAPIDS—Cont'd:                       | 1                   | 1     |              | F.                   | 1          | 1             |                       | 1                               |                  |           | 1                   |         |               |                |           | 1                    | 1            |                    |               |                   |                       |                           |              | 1              |                            |  |
|  | 3                   | 3     |              | { F.<br>M. }         | 19<br>16   | 19<br>10      |                       | 5<br>2                          | 14<br>14         | 2<br>6    | 17<br>10            |         | 3             |                | 9<br>6    | 10<br>4              | 19<br>10     |                    |               |                   | 1                     |                           |              | 19<br>16       |                            |  |
|  |                     |       |              |                      |            |               |                       |                                 |                  |           |                     |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
| Total, city.....                         | 116                 | 106   | 7            | { F.<br>M. }         | 107<br>296 | 106<br>290    | 1<br>6                | 45<br>168                       | 37<br>105        | 16<br>148 | 83<br>133           | 3<br>92 | 2<br>60       | 78<br>101      | 24<br>38  | 70<br>157            | 11           | 36<br>128          |               |                   | 4<br>82               | 2<br>2                    |              | 104<br>296     |                            |  |
| BAY CITY:                                |                     |       |              |                      |            |               |                       |                                 |                  |           |                     |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
| Bakeries.....                            | 2                   | 2     |              | M.                   | 5          | 5             |                       | 2                               | 3                | 1         | 4                   |         | 1             | 4              |           |                      | 5            |                    |               | 2                 |                       | 1                         | 5            |                |                            |  |
| Bankers and brokers..                    | 4                   | 3     | 1            | M.                   | 15         | 15            |                       | 14                              | 1                | 6         | 9                   | 3       | 3             | 5              | 4         | 3                    |              | 12                 |               | 10                |                       |                           | 15           |                |                            |  |
| Barber shops and bath houses.....        | 4                   | 2     | 2            | M.                   | 6          | 6             |                       | 4                               | 2                | 1         | 5                   |         | 1             | 4              | 1         | 6                    |              |                    |               | 1                 |                       |                           | 6            |                |                            |  |
| Blacksmithing and horseshoeing.....      | 7                   | 6     | 1            | M.                   | 13         | 12            | 1                     | 6                               | 7                | 7         | 6                   | 1       | 4             | 7              | 1         | 9                    | 4            |                    |               | 2                 | 1                     | 2                         | 13           |                |                            |  |
| Books and stationery..                   | 3                   | 3     |              | M.                   | 3          | 2             | 1                     | 3                               |                  |           | 3                   |         |               |                | 3         | 3                    |              |                    |               |                   | 1                     |                           | 3            |                |                            |  |
| Boots and shoes.....                     | 6                   | 6     |              | M.                   | 18         | 17            | 1                     | 10                              | 8                | 8         | 10                  | 3       | 4             | 9              | 2         | 18                   |              |                    |               | 2                 |                       |                           | 18           |                |                            |  |
| Clothing stores.....                     | 9                   | 9     |              | M.                   | 26         | 26            |                       | 15                              | 11               | 8         | 18                  | 2       | 13            | 9              | 2         | 15                   |              | 11                 |               | 2                 | 1                     |                           | 26           |                |                            |  |
| Coal and wood yards.                     | 2                   | 2     |              | M.                   | 121        | 121           |                       | 83                              | 38               | 41        | 80                  | 27      | 14            | 75             | 5         | 6                    |              | 115                |               | 13                |                       |                           | 121          |                |                            |  |
| Crockery, glass and stoneware dealers... | 3                   | 3     |              | M.                   | 9          | 6             | 3                     | 6                               | 3                | 1         | 8                   |         | 1             | 2              | 6         | 9                    |              |                    |               | 2                 |                       |                           | 9            |                |                            |  |
| Commission stores....                    | 2                   | 2     |              | M.                   | 3          | 3             |                       | 2                               | 1                |           | 3                   |         |               | 1              | 2         | 3                    |              |                    |               |                   |                       |                           | 3            |                |                            |  |
| Contractors, carpenters and builders.... | 2                   | 2     |              | M.                   | 20         | 20            |                       | 4                               | 16               | 14        | 6                   | 4       | 6             | 10             |           | 20                   |              |                    |               | 2                 | 1                     |                           | 20           |                |                            |  |
| Dressed meats.....                       | 2                   | 2     |              | M.                   | 8          | 8             |                       | 5                               | 3                | 3         | 5                   | 3       | 3             | 4              |           | 2                    |              | 6                  |               | 3                 |                       |                           | 8            |                |                            |  |

|   |    |    |         |            |           |           |        |          |          |         |           |    |    |           |          |          |         |           |    |
|---|----|----|---------|------------|-----------|-----------|--------|----------|----------|---------|-----------|----|----|-----------|----------|----------|---------|-----------|----|
| Dry goods.....                                    | 6  | 6  | 10 13   | { F.<br>M. | 22<br>30  | 27        | 3      | 20       | 2        | 11      | 22        | 6  | 5  | 5         | 17       | 22       | 1       | 1         | 29 |
| Drugs.....  | 8  | 7  | 14 12   | M.         | 20        | 17        | 3      | 15       | 5        | 5       | 15        | 1  | 4  | 3         | 12       | 20       | 2       | 1         | 30 |
| Electric light compa-<br>nies.....                | 1  | 1  | 10      | M.         | 8         | 8         | 8      | 8        | 4        | 4       | 4         | 1  | 6  | 1         | 8        | 8        | 1       | 8         |    |
| Fruit, confectionery }<br>and canned goods.. }    | 4  | 4  | 12      | { F.<br>M. | 1<br>4    | 1<br>4    | 1<br>4 | 1<br>1   | 2        | 4       | 4         | 1  | 4  | 4         | 1        | 3        | 1       | 1         |    |
| Furniture stores.....                             | 1  | 1  | 10      | { F.<br>M. | 1<br>5    | 1<br>5    | 1<br>5 | 1<br>5   | 3        | 3       | 2         | 3  | 3  | 1         | 1        | 5        | 2       | 1         |    |
| Gas companies.....                                | 1  | 1  | 12      | M.         | 6         | 6         | 6      | 6        | 6        | 5       | 1         | 4  | 2  | 2         | 1        | 6        | 6       | 6         |    |
| General stores.....                               | 1  | 1  | 10      | { F.<br>M. | 1<br>2    | 1<br>2    | 1<br>2 | 1<br>1   | 1        | 1       | 1         | 1  | 1  | 1         | 1        | 2        | 1       | 1         |    |
| Groceries.....                                    | 28 | 26 | 2 11 23 | { F.<br>M. | 83<br>81  | 6<br>2    | 67     | 15       | 36       | 36      | 47        | 20 | 22 | 27        | 14       | 60       | 20      | 6         |    |
| Hack and 'bus line.....                           | 1  | 1  | 12      | M.         | 9         | 9         | 9      | 8        | 1        | 4       | 5         | 2  | 2  | 2         | 5        | 9        | 3       | 9         |    |
| Hardware, stoves and }<br>tinware..... }          | 7  | 7  | 10 19   | { F.<br>M. | 2<br>66   | 2<br>62   | 4      | 48       | 18       | 28      | 38        | 15 | 18 | 26        | 7        | 66       | 15      | 7         |    |
| Harness.....                                      | 4  | 4  | 10 34   | M.         | 7         | 7         | 7      | 5        | 2        | 7       | 7         | 1  | 5  | 1         | 7        | 7        | 1       | 7         |    |
| Hats, caps and gent's<br>furnishing goods.....    | 1  | 1  | 12      | M.         | 5         | 5         | 5      | 5        | 5        | 1       | 4         | 1  | 1  | 2         | 2        | 5        | 5       | 5         |    |
| Hotels, board'g houses }<br>and restaurants.... } | 26 | 17 | 8 12 35 | { F.<br>M. | 113<br>57 | 111<br>51 | 2<br>6 | 74<br>41 | 34<br>12 | 5<br>11 | 108<br>41 | 3  | 3  | 113<br>54 | 63<br>24 | 63<br>24 | 12<br>9 | 113<br>57 |    |
| Ice dealers.....                                  | 1  | 1  | 8       | M.         | 15        | 15        | 15     | 14       | 1        | 12      | 3         | 3  | 9  | 2         | 1        | 15       | 15      | 15        |    |
| Jewelry stores.....                               | 3  | 3  | 10 45   | M.         | 4         | 4         | 4      | 3        | 1        | 4       | 4         | 4  | 4  | 2         | 2        | 4        | 2       | 4         |    |
| Laundries.....                                    | 1  | 1  | 10      | { F.<br>M. | 9<br>3    | 9<br>3    | 9      | 3        | 6        | 1       | 8         | 1  | 1  | 5         | 1        | 9        | 2       | 9         |    |
| Lime and hair dealers..                           | 1  | 1  | 10      | M.         | 8         | 8         | 8      | 3        | 5        | 7       | 1         | 2  | 6  | 6         | 8        | 8        | 1       | 8         |    |
| Livery stables.....                               | 5  | 3  | 2 12 36 | M.         | 15        | 15        | 15     | 11       | 3        | 2       | 12        | 1  | 13 | 1         | 11       | 11       | 4       | 15        |    |
| Lumber yards.....                                 | 3  | 1  | 10      | M.         | 90        | 85        | 5      | 50       | 35       | 57      | 31        | 35 | 22 | 13        | 18       | 30       | 28      | 90        |    |
| Meat markets.....                                 | 7  | 6  | 13 48   | M.         | 20        | 20        | 20     | 15       | 5        | 7       | 13        | 1  | 1  | 14        | 5        | 13       | 2       | 20        |    |
| Millinery stores.....                             | 8  | 7  | 10 17   | { F.<br>M. | 28<br>3   | 28<br>1   | 2      | 24<br>2  | 4<br>1   | 4       | 28<br>3   | 28 | 7  | 7         | 21       | 24       | 1       | 24        |    |
| Mill machinery and salt<br>block supplies.....    | 2  | 1  | 10      | M.         | 7         | 7         | 7      | 7        | 7        | 6       | 1         | 2  | 2  | 2         | 3        | 7        | 2       | 7         |    |

TABLE NO. 33.—Continued.

| Class of Business.                | Sanitary Condition. |       |       | H's per Day. | Sex.             | Number of Employes. |                       |                                 | Nativity. |          |          | Civil Condition. |               | Number of Employes |           |                      |              |                    |               |                   |                       |                           |              | Number of Employes |                            |  |  |  |
|-----------------------------------|---------------------|-------|-------|--------------|------------------|---------------------|-----------------------|---------------------------------|-----------|----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|--------------------|----------------------------|--|--|--|
|                                   | Good.               | Fair. | Poor. |              |                  | Total Number.       | Over 16 years of age. | Sixteen years of age and Under. | Native.   | Foreign. | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash.     | Paid part in Store Orders. |  |  |  |
|                                   |                     |       |       |              |                  |                     |                       |                                 |           |          |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                    |                            |  |  |  |
| BAY CITY—Continued:               |                     |       |       |              |                  |                     |                       |                                 |           |          |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                    |                            |  |  |  |
| Notions and fancy goods.....      | 1                   | 1     | 11    |              | { F. }<br>{ M. } | 4                   | 4                     | 3                               | 1         | 4        | 2        | 4                | 1             | 1                  | 4         | 1                    | 4            | 4                  | 4             | 4                 | 4                     | 4                         | 4            | 4                  |                            |  |  |  |
| Plumbing & gas fitting.           | 3                   | 3     | 10    |              | M.               | 8                   | 8                     | 8                               | 8         | 8        | 8        | 8                | 8             | 8                  | 8         | 8                    | 8            | 8                  | 8             | 8                 | 8                     | 8                         | 8            |                    |                            |  |  |  |
| Printing and publish-<br>ing..... | 2                   | 2     | 10    |              | { F. }<br>{ M. } | 7                   | 7                     | 1                               | 1         | 1        | 6        | 2                | 3             | 3                  | 1         | 1                    | 7            | 1                  | 1             | 1                 | 1                     | 1                         | 1            |                    |                            |  |  |  |
| Second-hand stores.....           | 3                   | 3     | 9 40  |              | M.               | 6                   | 6                     | 2                               | 4         | 3        | 3        | 2                | 1             | 2                  | 1         | 6                    | 1            | 6                  | 1             | 2                 | 2                     | 2                         | 6            |                    |                            |  |  |  |
| Sewing machines.....              | 1                   | 1     | 10    |              | F.               | 1                   | 1                     | 1                               | 1         | 1        | 1        | 1                | 1             | 1                  | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            |                    |                            |  |  |  |
| Sporting goods.....               | 1                   | 1     | 7     |              | M.               | 1                   | 1                     | 1                               | 1         | 1        | 1        | 1                | 1             | 1                  | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            |                    |                            |  |  |  |
| Street railways.....              | 1                   | 1     | 11    |              | M.               | 17                  | 17                    | 10                              | 7         | 13       | 4        | 3                | 10            | 2                  | 2         | 2                    | 17           | 17                 | 17            | 17                | 17                    | 17                        | 17           |                    |                            |  |  |  |
| Tailoring.....                    | 3                   | 2     | 12 12 |              | M.               | 5                   | 5                     | 3                               | 2         | 2        | 3        | 4                | 1             | 4                  | 1         | 3                    | 2            | 2                  | 2             | 3                 | 3                     | 3                         | 5            |                    |                            |  |  |  |
| Teas, coffee and spices           | 3                   | 3     | 9 18  |              | M.               | 15                  | 13                    | 14                              | 1         | 4        | 11       | 1                | 6             | 5                  | 3         | 15                   | 15           | 15                 | 15            | 15                | 15                    | 15                        | 15           |                    |                            |  |  |  |
| Tobacco and cigars.....           | 1                   | 1     | 17    |              | M.               | 1                   | 1                     | 1                               | 1         | 1        | 1        | 1                | 1             | 1                  | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            |                    |                            |  |  |  |
| Undertaking.....                  | 1                   | 1     | 12    |              | M.               | 3                   | 3                     | 3                               | 3         | 2        | 1        | 1                | 2             | 1                  | 1         | 3                    | 3            | 3                  | 3             | 3                 | 3                     | 3                         | 3            |                    |                            |  |  |  |
| Vessel supplies.....              | 1                   | 1     | 10    |              | M.               | 1                   | 1                     | 1                               | 1         | 1        | 1        | 1                | 1             | 1                  | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            |                    |                            |  |  |  |
| Vessels and tugs.....             | 1                   | 1     | 12    |              | M.               | 6                   | 6                     | 5                               | 1         | 2        | 4        | 2                | 4             | 4                  | 2         | 4                    | 6            | 6                  | 6             | 6                 | 6                     | 6                         | 6            |                    |                            |  |  |  |
| Water-works employes.             | 1                   | 1     | 12    |              | M.               | 4                   | 4                     | 3                               | 1         | 4        | 4        | 4                | 4             | 4                  | 4         | 4                    | 4            | 4                  | 4             | 4                 | 4                     | 4                         | 4            |                    |                            |  |  |  |
| Wool, hides and pelts..           | 1                   | 1     | 10    |              | M.               | 4                   | 4                     | 1                               | 3         | 2        | 2        | 2                | 1             | 1                  | 1         | 4                    | 4            | 4                  | 4             | 4                 | 4                     | 4                         | 4            |                    |                            |  |  |  |
| Total city.....                   | 190                 | 158   | 29    | 110 51       | { F. }<br>{ M. } | 189                 | 794                   | 187                             | 47        | 6        | 181      | 1                | 137           | 49                 | 124       | 9                    | 52           | 15                 | 1             | 185               | 185                   | 185                       |              |                    |                            |  |  |  |
|                                   |                     |       |       |              |                  | 794                 | 794                   | 452                             | 238       | 384      | 452      | 153              | 175           | 121                | 452       | 112                  | 230          | 162                | 23            | 794               | 794                   | 794                       |              |                    |                            |  |  |  |

|  |    |    |         |                  |   |   |    |    |    |   |   |   |   |   |
|--|----|----|---------|------------------|---|---|----|----|----|---|---|---|---|---|
| <b>BLISSFIELD:</b>                           |    |    |         |                  |   |   |    |    |    |   |   |   |   |   |
| Bankers and brokers.....                     | 1  | 1  | 9       | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Dry goods.....                               | 3  | 3  | 13      | M.               | 6 | 6 | 1  | 5  | 1  | 1 | 5 | 6 | 6 | 6 |
| Drugs.....                                   | 2  | 2  | 13      | M.               | 3 | 3 | 1  | 2  | 1  | 2 | 2 | 3 | 3 | 3 |
| Furniture stores.....                        | 1  | 1  | 10      | M.               | 2 | 2 | 2  | 2  | 2  | 2 | 2 | 2 | 2 | 2 |
| Groceries.....                               | 2  | 2  | 13      | M.               | 3 | 3 | 3  | 3  | 3  | 3 | 2 | 1 | 3 | 3 |
| Hardware, stoves and tinware.....            | 3  | 3  | 13      | M.               | 7 | 7 | 4  | 3  | 3  | 3 | 3 | 1 | 7 | 7 |
| Harness.....                                 | 1  | 1  | 10      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Hotels, boarding-houses and restaurants..... | 2  | 2  | 14      | { F. }<br>{ M. } | 4 | 4 | 1  | 4  | 3  | 3 | 3 | 1 | 4 | 4 |
| Meat markets.....                            | 3  | 3  | 12 30   | M.               | 4 | 4 | 4  | 3  | 1  | 2 | 1 | 1 | 4 | 4 |
| Total, town.....                             | 18 | 18 | 12 33   | { F. }<br>{ M. } | 4 | 4 | 31 | 10 | 20 | 4 | 5 | 3 | 1 | 4 |
| <b>BRONSON.</b>                              |    |    |         |                  |   |   |    |    |    |   |   |   |   |   |
| Bankers and brokers.....                     | 1  | 1  | 8       | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Clothing stores.....                         | 1  | 1  | 13      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Commission stores.....                       | 1  | 1  | 10      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Drugs.....                                   | 1  | 1  | 14      | F.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Dry goods.....                               | 1  | 1  | 14      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Furniture and undertaking.....               | 1  | 1  | 10      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| General stores.....                          | 4  | 4  | 13 11   | { F. }<br>{ M. } | 2 | 2 | 2  | 1  | 1  | 1 | 2 | 1 | 2 | 2 |
| Hardware, stoves and tinware.....            | 1  | 1  | 13      | M.               | 1 | 1 | 1  | 1  | 1  | 1 | 1 | 1 | 1 | 1 |
| Hotels, boarding-houses and restaurants..... | 2  | 1  | 12      | { F. }<br>{ M. } | 5 | 6 | 1  | 5  | 1  | 5 | 5 | 5 | 6 | 5 |
| Meat markets.....                            | 1  | 1  | 15      | M.               | 2 | 2 | 2  | 1  | 1  | 1 | 1 | 2 | 2 | 2 |
| Printing and publishing.....                 | 2  | 1  | 10      | M.               | 2 | 2 | 2  | 2  | 2  | 2 | 2 | 2 | 2 | 2 |
| Total, town.....                             | 16 | 14 | 2 12 22 | { F. }<br>{ M. } | 8 | 8 | 20 | 1  | 8  | 1 | 4 | 5 | 2 | 8 |

TABLE NO. 33.—Continued.

| Class of Business. | Sanitary Condition.                      |       | Hr's per Day. | Number of Employés. |                       | Nativity.                       |          | Civil Condition. |          | Number of Employés |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--------------------|--|-------|---------------|---------------------|-----------------------|---------------------------------|----------|------------------|----------|--------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|                    | Sex.                                     |       |               | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.  | Foreign.         | Married. | Single.            | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|                    | Good.                                    | Fair. | Hours.        |                     |                       |                                 |          |                  |          |                    |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| BUCHANAN :         | Building stone dealers.                  | 1     | 1             | 10                  | M.                    | 3                               | 3        | 2                | 1        | 3                  | 1             | 2              | 1         | 2                    | 3            | 3                  | 1             | 2                 | 1                     | 1                         | 1            | 1              | 3                          |
|                    | Clothing.                                | 2     | 2             | 14 40               | M.                    | 3                               | 3        | 3                |          | 1                  | 2             | 1              | 2         | 1                    | 1            | 3                  | 2             | 1                 | 2                     | 1                         | 1            | 3              |                            |
|                    | Contractors, carpenters and builders.    | 1     | 1             | 10                  | M.                    | 7                               | 7        | 6                | 1        | 5                  | 2             | 2              | 3         | 2                    | 7            | 1                  | 1             | 2                 | 1                     | 1                         | 1            | 7              |                            |
|                    | Drugs                                    | 1     | 1             | 15                  | M.                    | 1                               | 1        | 1                |          | 1                  | 1             | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              |                            |
|                    | Dry goods.                               | 3     | 3             | 14 48               | { F.<br>M.            | 2<br>3                          | 2<br>3   | 2<br>3           |          | 1<br>2             | 1<br>1        | 1<br>2         | 1<br>1    | 2<br>1               | 3<br>2       | 1<br>3             | 1<br>2        | 1<br>1            | 3<br>1                | 1<br>1                    | 1<br>1       | 1<br>1         | 3<br>2                     |
|                    | Groceries.                               | 4     | 4             | 15                  | M.                    | 11                              | 11       | 11               |          | 5                  | 6             | 3              | 6         | 2                    | 8            | 8                  | 3             | 1                 | 1                     | 1                         | 1            | 11             |                            |
|                    | Hardware, stoves and tinware.            | 1     | 1             | 13                  | M.                    | 4                               | 4        | 4                |          | 3                  | 1             | 2              | 1         | 2                    | 4            | 4                  | 1             | 1                 | 1                     | 1                         | 1            | 4              |                            |
|                    | Hotels, boarding-houses and restaurants. | 2     | 2             | 15                  | { F.<br>M.            | 7<br>2                          | 7<br>2   | 7<br>2           |          | 1<br>2             | 6<br>2        | 1<br>2         | 1<br>2    | 1<br>2               | 7<br>2       | 2<br>2             | 2<br>2        | 1<br>2            | 1<br>2                | 1<br>2                    | 1<br>2       | 2<br>2         |                            |
|                    | Meat markets.                            | 1     | 1             | 15                  | M.                    | 2                               | 2        | 2                |          | 2                  |               | 2              | 2         | 2                    | 2            | 2                  | 2             | 2                 | 2                     | 2                         | 2            | 2              |                            |
|                    | Printing and publishing.                 | 2     | 2             | 10                  | { F.<br>M.            | 4<br>4                          | 4<br>4   | 4<br>4           |          | 1<br>3             | 3<br>1        | 1<br>1         | 2<br>1    | 1<br>1               | 4<br>4       | 4<br>4             | 4<br>4        | 1<br>1            | 1<br>1                | 1<br>1                    | 1<br>1       | 1<br>1         | 4<br>4                     |
| Tailoring.         | 2  | 2     | 10            | { F.<br>M.          | 6<br>1                | 6<br>1                          | 6<br>1   |                  | 1<br>1   | 5<br>1             | 1<br>1        | 1<br>1         | 1<br>1    | 6<br>1               | 6<br>1       | 1<br>1             | 1<br>1        | 5<br>1            | 5<br>1                | 1<br>1                    | 1<br>1       | 6<br>1         |                            |
| Total, town.       | 20                                       | 20    | 12 17         | { F.<br>M.          | 19<br>41              | 19<br>41                        | 19<br>39 |                  | 4<br>24  | 15<br>17           | 3<br>12       | 2<br>12        | 2<br>12   | 14<br>17             | 19<br>36     | 19<br>36           | 5             | 6                 | 2                     | 4                         | 2            | 19<br>41       |                            |
| CALUMET:           | Bankers and brokers.                     | 1     | 1             | 10                  | M.                    | 3                               | 3        | 2                | 1        | 2                  | 1             | 1              | 1         | 1                    | 1            | 1                  | 3             | 2                 |                       |                           |              | 3              |                            |
|                    | Barber shops and bath rooms.             | 1     | 1             | 12                  | M.                    | 1                               | 1        | 1                |          |                    | 1             | 1              | 1         | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
|                    | Blacksmithing and horseshoeing.          | 1     | 1             | 10                  | M.                    | 1                               | 1        | 1                |          |                    | 1             | 1              | 1         | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
|                    |  |       |               |                     |                       |                                 |          |                  |          |                    |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |

[illegible]

TABLE NO. 83.—Continued.

| Class of Business. | Sanitary Condition. |       | Hrs per Day. | Number in each Class. |               | Number of Employes.   |                                 |         | Nativity. |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              | Paid all Cash. | Paid part in Store Orders. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|---------------------|-------|--------------|-----------------------|---------------|-----------------------|---------------------------------|---------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                    | Good.               | Fair. |              | Poor.                 | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices. |                |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |                     |       |              |                       |               |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COLDWATER—Cont'd:  |                     |       |              |                       |               |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |    |    |       |            |           |           |           |          |           |           |          |         |         |           |          |           |          |
|--|----|----|-------|------------|-----------|-----------|-----------|----------|-----------|-----------|----------|---------|---------|-----------|----------|-----------|----------|
| Hack and 'bus lines...                       | 1  | 1  | 14    | M.         | 4         | 4         | 4         | 1        | 3         | 3         | 1        | 4       | 4       | 4         | 11       | 2         | 4        |
| Hardware, stoves and tinware.....            | 2  | 2  | 14    | M.         | 11        | 11        | 1         | 1        | 2         | 3         | 8        | 11      | 11      | 1         | 1        | 11        | 11       |
| Harness.....                                 | 1  | 1  | 10    | M.         | 2         | 2         | 2         | 2        | 2         | 2         |          | 2       | 2       |           | 2        | 2         | 2        |
| Hotels, boarding-houses and restaurants..... | 4  | 4  | 12 24 | { F.<br>M. | 21<br>13  | 21<br>13  | 15<br>12  | 6<br>1   | 1<br>2    | 20<br>11  | 21<br>13 | 10<br>6 | 11<br>7 |           | 10<br>6  | 21<br>13  | 21<br>13 |
| Ice dealers.....                             | 1  | 1  | 10    | M.         | 3         | 3         | 3         | 3        | 1         | 2         | 1        | 3       | 3       |           | 3        | 3         | 3        |
| Jewelry.....                                 | 1  | 1  | 14    | M.         | 1         | 1         | 1         | 1        |           | 1         |          | 1       | 1       |           | 1        | 1         | 1        |
| Livery stables.....                          | 5  | 4  | 13 40 | M.         | 9         | 9         | 9         | 9        | 4         | 5         | 1        | 5       | 4       |           | 4        | 9         | 9        |
| Lumber yards.....                            | 2  | 2  | 10    | M.         | 3         | 3         | 1         | 2        | 3         |           | 1        | 1       | 3       |           | 3        | 3         | 3        |
| Millinery stores.....                        | 1  | 1  | 12    | F.         | 2         | 2         | 2         | 2        | 1         | 1         | 1        | 1       | 2       |           | 2        | 2         | 2        |
| Notions and fancy goods.....                 | 2  | 2  | 13    | { F.<br>M. | 4<br>1    | 4<br>1    | 4<br>1    | 4<br>1   | 3<br>1    | 1         |          | 1       | 3       |           | 4<br>1   | 4<br>1    | 4<br>1   |
| Plumbing and gas-fitting.....                | 1  | 1  | 10    | M.         | 3         | 3         | 3         | 3        | 2         | 1         | 1        | 1       | 3       |           | 3        | 3         | 3        |
| Printing and publishing.....                 | 4  | 4  | 10    | { F.<br>M. | 2<br>22   | 2<br>22   | 2<br>22   | 2<br>22  | 8         | 2<br>14   | 6<br>5   | 2<br>6  | 2<br>22 |           | 2<br>22  | 2<br>22   | 2<br>22  |
| Pump dealers.....                            | 1  | 1  | 12    | M.         | 1         | 1         | 1         | 1        | 1         | 1         |          | 1       | 1       |           | 1        | 1         | 1        |
| Tailoring.....                               | 2  | 2  | 11 15 | { F.<br>M. | 2<br>6    | 2<br>6    | 2<br>1    | 5        | 2         | 2         | 3        | 2       | 2       |           | 2        | 2         | 2        |
| Total, city.....                             | 87 | 84 | 3     | { F.<br>M. | 51<br>223 | 50<br>219 | 37<br>187 | 12<br>20 | 10<br>100 | 39<br>107 | 1<br>54  | 3<br>73 | 8<br>17 | 40<br>206 | 11<br>17 | 49<br>223 | 2<br>223 |
| DETROIT:                                     |    |    |       |            |           |           |           |          |           |           |          |         |         |           |          |           |          |
| Advertising agencies.....                    | 1  | 1  | 9     | { F.<br>M. | 1<br>3    | 1<br>2    | 1<br>2    | 1        |           | 1         |          | 1       | 1       |           | 1        | 1         | 1        |
| Agricultural implements.....                 | 1  | 1  | 10    | M.         | 1         | 1         | 1         | 1        |           | 1         |          | 1       | 1       |           | 1        | 1         | 1        |
| Architects.....                              | 4  | 4  | 8 10  | M.         | 11        | 11        | 8         | 3        | 4         | 7         | 1        | 3       | 5       | 1         | 7        | 11        | 11       |
| Artists' supplies.....                       | 1  | 1  | 9     | M.         | 2         | 1         | 1         | 1        |           | 2         |          | 1       | 1       |           | 2        | 2         | 2        |
| Auctioneers.....                             | 2  | 1  | 10 24 | M.         | 5         | 5         | 5         | 5        | 3         | 2         |          | 2       | 1       |           | 5        | 5         | 5        |
| Bakeries.....                                | 11 | 11 | 11 25 | { F.<br>M. | 8<br>43   | 8<br>42   | 5<br>13   | 3<br>28  | 3<br>25   | 8<br>18   | 3<br>20  | 4<br>15 | 4<br>8  | 8<br>43   | 8<br>43  | 8<br>43   | 8<br>43  |



TABLE NO. 83.—Continued.

| Class of Business.                       | Number in each Class. |       | Hrs Per Day. |          | Sex.                   | Number of Employés. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |                           | Paid all Cash. | Paid part in Store Orders. |
|--|-----------------------|-------|--------------|----------|------------------------|---------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------|----------------------------|
|  |                       |       |              |          |                        |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |                |                            |
|  | Good.                 | Poor. | Hours.       | Minutes. |                        | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Rem. monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices.   |                            |
| <i>DETROIT—Continued:</i>                |                       |       |              |          |                        |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |                |                            |
| Baking powder and extracts               | 3                     |       |              |          | { F. 9 18<br>M. 13 11  | 10<br>13            | 10<br>11              | 2                               | 9<br>5    | 1<br>6   | 2                | 11      | 1                  |                |           | 5                    | 6<br>13      |                    |               |                   | 5                     |                           |                | 10<br>13                   |
| Bankers and brokers                      | 11                    |       |              |          | { F. 7 46<br>M. 53 52  | 1<br>53             | 1<br>52               | 1                               | 36<br>4   | 3<br>1   | 18               | 35      | 10                 | 13             | 10        | 11                   | 2            |                    | 48            | 3                 | 2                     |                           |                | 1                          |
| Barbershops and bath rooms               | 24                    |       |              |          | { F. 13 11<br>M. 52 48 | 5<br>52             | 5<br>48               | 4                               | 4<br>31   | 1<br>16  | 1                | 5       | 3                  | 17             | 16        | 13                   | 1<br>49      |                    | 8             |                   | 1                     |                           |                | 5                          |
| Bill posting                             | 1                     |       |              |          | M. 8                   | 8                   | 8                     |                                 | 7         | 1        | 3                | 5       |                    | 3              |           | 6                    | 8            |                    |               |                   |                       |                           |                | 8                          |
| Blacksmithing and horseshoeing           | 26                    |       |              |          | M. 10                  | 64                  | 64                    |                                 | 26        | 35       | 34               | 30      | 9                  | 25             | 15        | 15                   | 58           | 4                  |               | 2                 | 1                     |                           | 2              | 64                         |
| Books and stationery                     | 9                     |       |              |          | { F. 10 17<br>M. 24 20 | 5<br>24             | 4<br>20               | 4                               | 4<br>14   | 9        | 6                | 17      | 1                  | 5              | 3         | 7                    | 2<br>11      | 4                  | 1             |                   | 1                     |                           | 1              | 24                         |
| Boots and shoes                          | 20                    |       |              |          | { F. 10 43<br>M. 100 9 | 1<br>100            | 1<br>9                |                                 | 50<br>9   | 25       | 38               | 68      | 9                  | 19             | 18        | 36                   | 105          | 1                  | 3             |                   | 10                    |                           | 1              | 106                        |
| Bottling works                           | 5                     |       |              |          | M. 10 16               | 15                  | 15                    |                                 | 9         | 6        | 8                | 7       | 2                  | 6              | 2         | 5                    | 15           |                    |               |                   |                       |                           |                | 15                         |
| Brick, tile, cement, lime and sewer-pipe | 5                     |       |              |          | M. 9 17                | 45                  | 45                    |                                 | 11        | 31       | 39               | 6       | 8                  | 31             | 3         | 3                    | 45           |                    |               |                   |                       |                           |                | 45                         |
| Building stone dealers                   | 5                     |       |              |          | M. 9 42                | 68                  | 68                    |                                 | 4         | 22       | 58               | 10      | 4                  | 10             | 9         | 1                    | 48           | 20                 |               |                   |                       |                           |                | 68                         |
| Carrage and wagon dealers                | 3                     |       |              |          | M. 10                  | 24                  | 23                    | 1                               | 15        | 9        | 13               | 11      | 12                 | 1              | 3         | 8                    | 24           |                    |               |                   |                       |                           |                | 24                         |
| Carpet cleaning                          | 1                     |       |              |          | M. 10                  | 2                   | 2                     |                                 | 1         | 1        | 2                |         |                    | 2              |           |                      | 2            |                    |               |                   |                       |                           |                | 2                          |
| Cigars and tobacco                       | 11                    |       |              |          | { F. 9 5<br>M. 31 30   | 1<br>31             | 1<br>30               | 1                               | 14<br>1   | 14       | 21               | 10      | 7                  | 14             | 4         | 6                    | 27           |                    | 8             | 1                 |                       |                           |                | 1                          |
| Clothing                                 | 12                    |       |              |          | { F. 10 7<br>M. 45 197 | 10<br>45            | 7<br>197              | 21                              | 35<br>218 | 56       | 78               | 63      | 19                 | 39             | 39        | 26                   | 216          |                    | 2             |                   | 9                     |                           |                | 218                        |

|  |    |    |    |     |     |     |     |     |     |     |     |    |    |     |     |     |    |    |     |     |
|--|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|----|----|-----|-----|
| Coal and wood yards..                        | 32 | 32 | 1  | 371 | 2   | 112 | 108 | 239 | 109 | 28  | 148 | 56 | 55 | 1   | 178 | 108 | 3  | 3  | 1   | 373 |
| Commission stores.....                       | 26 | 15 | 3  | 72  | 3   | 36  | 31  | 33  | 39  | 7   | 21  | 1  | 2  | 3   | 3   | 3   | 3  | 3  | 3   | 72  |
| Contractors, carpenters<br>and builders..... | 17 | 16 | 1  | 255 | 255 | 54  | 81  | 101 | 41  | 31  | 54  | 19 | 18 | 1   | 50  | 203 | 1  | 1  | 1   | 255 |
| Costumers.....                               | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1  | 1  | 1   | 1   | 1   | 1  | 1  | 1   | 1   |
| Crockery, glass and<br>stoneware dealers..   | 6  | 6  | 5  | 37  | 35  | 24  | 1   | 15  | 22  | 5   | 10  | 5  | 2  | 2   | 5   | 37  | 1  | 1  | 5   | 37  |
| Dairies.....                                 | 1  | 1  | 3  | 3   | 2   | 1   | 1   | 1   | 2   | 1   | 1   | 2  | 2  | 3   | 3   | 3   | 3  | 3  | 3   | 3   |
| Dentists.....                                | 4  | 3  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1  | 1  | 1   | 1   | 1   | 1  | 1  | 1   | 1   |
| Drying.....                                  | 2  | 1  | 9  | 9   | 5   | 5   | 4   | 6   | 3   | 4   | 4   | 5  | 1  | 4   | 5   | 5   | 7  | 5  | 5   | 9   |
| Drugs.....                                   | 29 | 29 | 12 | 140 | 130 | 10  | 95  | 34  | 26  | 114 | 9   | 16 | 11 | 63  | 129 | 4   | 7  | 6  | 1   | 140 |
| Dry goods.....                               | 14 | 13 | 1  | 116 | 116 | 84  | 31  | 3   | 106 | 30  | 37  | 68 | 10 | 103 | 116 | 15  | 35 | 25 | 116 | 214 |
| Dyers.....                                   | 3  | 3  | 2  | 5   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1  | 1  | 1   | 1   | 2   | 2  | 2  | 2   | 5   |
| Electric light compa-<br>nies.....           | 1  | 1  | 5  | 5   | 5   | 2   | 3   | 1   | 4   | 1   | 1   | 3  | 1  | 1   | 5   | 5   | 5  | 5  | 5   | 5   |
| Engraving.....                               | 2  | 2  | 28 | 28  | 22  | 6   | 14  | 14  | 2   | 12  | 4   | 10 | 28 | 13  | 28  | 28  | 13 | 13 | 28  | 28  |
| Express companies.....                       | 2  | 2  | 1  | 156 | 156 | 121 | 35  | 93  | 63  | 28  | 65  | 41 | 1  | 22  | 156 | 1   | 1  | 1  | 1   | 156 |
| Feather dealers.....                         | 2  | 2  | 8  | 8   | 5   | 2   | 3   | 3   | 8   | 3   | 3   | 1  | 8  | 8   | 8   | 8   | 8  | 8  | 8   | 8   |
| Fish dealers.....                            | 4  | 4  | 30 | 30  | 5   | 5   | 3   | 3   | 7   | 1   | 2   | 3  | 3  | 3   | 28  | 28  | 28 | 28 | 28  | 28  |
| Flooring dealers.....                        | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1  | 1  | 1   | 1   | 1   | 1  | 1  | 1   | 1   |
| Flour, feed and grain<br>dealers.....        | 11 | 11 | 1  | 23  | 23  | 17  | 5   | 8   | 15  | 1   | 7   | 7  | 1  | 7   | 23  | 1   | 1  | 1  | 1   | 23  |
| Forwarding docks.....                        | 1  | 1  | 4  | 4   | 4   | 1   | 3   | 3   | 1   | 3   | 3   | 1  | 1  | 4   | 4   | 4   | 4  | 4  | 4   | 4   |
| Fruit, confectionery<br>and canned goods..   | 6  | 6  | 4  | 40  | 40  | 37  | 3   | 25  | 3   | 1   | 9   | 1  | 1  | 5   | 15  | 25  | 25 | 25 | 40  | 40  |
| Furniture stores.....                        | 19 | 18 | 2  | 108 | 102 | 6   | 38  | 65  | 41  | 13  | 49  | 21 | 24 | 2   | 108 | 7   | 3  | 3  | 2   | 108 |

TABLE No. 38.—Continued.

| Class of Business.                               | Number in each Class. |       | Sanitary Condition. |        | Hrs per Day. | Sex. | Number of Employees. |               |                       | Nativity.                       |         | Civil Condition. |          | Number of Employees |               |                |           |                      |              |                    |               |                   |                       | Paid part in Store Orders. |                           |              |                |    |
|--|-----------------------|-------|---------------------|--------|--------------|------|----------------------|---------------|-----------------------|---------------------------------|---------|------------------|----------|---------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|----------------------------|---------------------------|--------------|----------------|----|
|  | Good.                 | Fair. | Poor.               | Hours. |              |      | Minutes.             | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.         | Married. | Single.             | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. |                            | Having Money at Interest. | Apprentices. | Paid all Cash. |    |
|  |                       |       |                     |        |              |      |                      |               |                       |                                 |         |                  |          |                     |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              |                |    |
| Detroit—Continued:                               |                       |       |                     |        |              |      |                      |               |                       |                                 |         |                  |          |                     |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              |                |    |
| Gas companies.....                               | 1                     | 1     |                     | 11     |              | M.   |                      | 35            | 35                    |                                 | 10      | 25               | 20       | 15                  | 18            | 2              | 15        |                      |              |                    |               | 35                |                       |                            |                           |              |                | 36 |
| General stores.....                              | 1                     | 1     |                     | 10     |              | F.   |                      | 2             | 2                     |                                 | 2       |                  |          | 2                   |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 2              |    |
| Glass dealers.....                               | 1                     | 1     |                     | 10     |              | M.   |                      | 18            | 18                    |                                 |         |                  | 8        | 10                  |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 18             |    |
| Gold, silver and electro plating.....            | 3                     | 3     |                     | 10     |              | F.   |                      | 2             | 2                     |                                 | 1       |                  |          | 2                   |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 2              |    |
| Grain elevators.....                             | 2                     | 2     |                     | 10     |              | M.   |                      | 51            | 51                    |                                 | 11      | 40               | 44       | 7                   | 24            | 20             | 4         | 3                    |              |                    |               | 51                |                       |                            |                           |              | 51             |    |
| Groceries.....                                   | 46                    | 42    | 3                   | 11     |              | F.   |                      | 9             | 9                     |                                 | 6       |                  |          | 9                   |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 9              |    |
| Hack and 'bus lines.....                         | 2                     | 2     |                     | 10     |              | M.   |                      | 72            | 68                    | 4                               | 51      | 21               | 44       | 28                  |               | 3              | 24        |                      |              |                    |               | 13                |                       |                            |                           |              | 72             |    |
| Hair stores.....                                 | 2                     | 2     |                     | 10     |              | F.   |                      | 2             | 1                     | 1                               | 2       |                  |          | 2                   |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 2              |    |
| Hats, caps and gentlemen's furnishing goods..... | 13                    | 12    |                     | 9      |              | F.   |                      | 13            | 13                    |                                 | 10      | 3                |          | 3                   |               |                |           |                      |              |                    |               |                   |                       |                            |                           |              | 13             |    |
| Hardware, stoves and tinware.....                | 37                    | 34    | 2                   | 10     |              | M.   |                      | 213           | 209                   | 4                               | 101     | 56               | 76       | 129                 | 23            | 47             | 49        | 56                   |              |                    |               | 14                |                       |                            |                           |              | 306            |    |
| Harness.....                                     | 5                     | 5     |                     | 10     |              | M.   |                      | 6             | 6                     |                                 | 4       | 2                | 1        | 5                   |               | 1              | 3         | 2                    |              |                    |               |                   |                       |                            |                           |              | 6              |    |
| Hotels, boarding houses and restaurants.....     | 29                    | 29    |                     | 13     |              | F.   |                      | 254           | 254                   |                                 | 78      | 96               | 20       | 234                 |               | 2              | 248       |                      |              |                    |               |                   |                       |                            |                           |              | 250            |    |
| Ice dealers.....                                 | 1                     | 1     |                     | 11     |              | M.   |                      | 40            | 40                    |                                 | 15      | 25               | 30       | 10                  | 15            | 15             | 5         | 5                    |              |                    |               |                   |                       |                            |                           |              | 167            |    |
| Insurance, real estate and other offices.....    | 27                    | 26    | 1                   | 9      |              | F.   |                      | 19            | 19                    |                                 | 18      | 3                | 1        | 18                  |               | 1              | 4         | 14                   |              |                    |               |                   |                       |                            |                           |              | 19             |    |
| Jewelry stores.....                              | 7                     | 7     |                     | 9      |              | M.   |                      | 13            | 13                    |                                 | 10      | 3                | 2        | 9                   |               | 2              | 7         | 3                    |              |                    |               | 4                 |                       |                            |                           |              | 74             |    |

|  |    |    |         |                 |            |            |          |           |          |         |          |            |           |
|--|----|----|---------|-----------------|------------|------------|----------|-----------|----------|---------|----------|------------|-----------|
| Junk and rag stores.....                         | 1  | 1  | 9       | F. 10<br>M. 10  | 30         | 30         | 15       | 15        | 15       | 30      | 30       | 10         | 10        |
| Laundries.....                                   | 16 | 16 | 9 25    | F. 115<br>M. 30 | 58<br>23   | 19<br>5    | 8<br>3   | 107<br>27 | 7<br>3   | 28<br>9 | 60<br>14 | 107<br>29  | 115<br>30 |
| Leather and findings.....                        | 1  | 1  | 12      | M. 1            | 1          | 1          | 1        | 1         | 1        | 1       | 1        | 1          | 1         |
| Liquor dealers, whole-sale.....                  | 4  | 4  | 10      | M. 20           | 12         | 8          | 13       | 7         | 7        | 6       | 3        | 9          | 20        |
| Livery stables.....                              | 21 | 19 | 2 11 48 | M. 159          | 76         | 70         | 28       | 124       | 2        | 24      | 112      | 112        | 156       |
| Lumber yards.....                                | 22 | 22 | 10 10   | F. 398<br>M. 1  | 129<br>254 | 211<br>137 | 1        | 1         | 36<br>53 | 7       | 26<br>24 | 234<br>164 | 398       |
| Machinery dealers.....                           | 1  | 1  | 10      | M. 4            | 3          | 1          | 2        | 2         | 2        | 2       | 2        | 4          | 4         |
| Mantels and grates.....                          | 1  | 1  | 10      | M. 10           | 2          | 8          | 4        | 6         | 2        | 2       | 1        | 5          | 10        |
| Markets.....                                     | 3  | 2  | 1 14 6  | F. 1<br>M. 9    | 1<br>8     | 1<br>2     | 1<br>2   | 1<br>7    | 1<br>2   | 1<br>4  | 3<br>4   | 1<br>9     | 1<br>9    |
| Meat markets.....                                | 18 | 16 | 2 13 4  | M. 33           | 34         | 5          | 23       | 16        | 7        | 32      | 1        | 6          | 38        |
| Millinery stores.....                            | 11 | 11 | 9 13    | F. 63<br>M. 39  | 1<br>32    | 30<br>7    | 11<br>14 | 1<br>25   | 54<br>3  | 1<br>11 | 12<br>14 | 49<br>39   | 63<br>39  |
| Model dealers.....                               | 3  | 2  | 10      | M. 11           | 7          | 4          | 2        | 9         | 1        | 1       | 2        | 7          | 11        |
| Musical instruments.....                         | 1  | 1  | 9       | M. 25           | 22         | 3          | 18       | 7         | 4        | 14      | 2        | 5          | 25        |
| News depots.....                                 | 1  | 1  | 12      | M. 1            | 1          | 1          | 1        | 1         | 1        | 1       | 1        | 1          | 1         |
| Notions and fancy goods.....                     | 11 | 11 | 10 25   | F. 85<br>M. 80  | 20<br>13   | 1<br>8     | 1<br>17  | 48<br>39  | 3<br>15  | 2<br>11 | 38<br>27 | 83<br>63   | 84<br>79  |
| Oil dealers.....                                 | 3  | 3  | 10      | M. 29           | 28         | 1          | 10       | 3         | 15       | 1       | 5        | 2          | 29        |
| Painting, paper-hang-<br>ing and decorating..... | 20 | 20 | 10      | F. 1<br>M. 350  | 1<br>126   | 116<br>148 | 1        | 1         | 27       | 94      | 48       | 39         | 1<br>350  |
| Paint dealers.....                               | 2  | 2  | 10      | M. 23           | 22         | 1          | 3        | 1         | 15       | 8       | 5        | 10         | 23        |
| Paper dealers.....                               | 4  | 4  | 10      | F. 3<br>M. 22   | 5<br>22    | 3<br>17    | 3<br>5   | 6<br>11   | 2<br>2   | 2<br>2  | 3<br>2   | 3<br>22    | 3<br>22   |
| Pattern dealers.....                             | 1  | 1  | 9       | F. 4<br>M. 1    | 4<br>1     | 1<br>1     | 1<br>1   | 1<br>1    | 1<br>1   | 1<br>1  | 1<br>1   | 1<br>1     | 1<br>1    |
| Photographing.....                               | 7  | 7  | 9 7     | F. 9<br>M. 11   | 8<br>10    | 1<br>3     | 1<br>3   | 9<br>9    | 3<br>2   | 2<br>2  | 6<br>6   | 7<br>9     | 7<br>9    |
| Plastering.....                                  | 2  | 2  | 10      | M. 78           | 78         | 24         | 4        | 3         | 21       | 2       | 2        | 2          | 78        |

TABLE NO. 88.—Continued.

| Class of Business.   | Number in each Class. |       | Sanitary Condition. |        | Hrs per Day. | Sex. | Number of Employes. |               | Nativity.             |                                 | Civil Condition. |          | Number of Employes |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|---------------------|--------|--------------|------|---------------------|---------------|-----------------------|---------------------------------|------------------|----------|--------------------|---------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Good.                 | Fair. | Poor.               | Hours. |              |      | Minutes.            | Total Number. | Over 16 Years of Age. | Sixteen Years of Age and under. | Native.          | Foreign. | Married.           | Single. | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  |                       |       |                     |        |              |      |                     |               |                       |                                 |                  |          |                    |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| DETROIT—Continued:<br>Pictures and picture frames<br>Plumbing and gas fitting. | 4                     | 4     | ...                 | 10     | 22           | M.   | 15                  | 14            | 1                     | 5                               | 10               | 3        | 12                 | ...     | 3             | 6              | 6         | 15                   | ...          | ...                | ...           | ...               | 3                     | ...                       | ...          | 15             | ...                        |
|  | 21                    | 19    | 2                   | 10     | ...          | M.   | 225                 | 224           | 1                     | 104                             | 68               | 69       | 156                | 17      | 32            | 27             | 78        | 215                  | 10           | ...                | ...           | ...               | 8                     | ...                       | 225          | ...            |                            |
| Pork and meat packing.   | 5                     | 5     | ...                 | 10     | 6            | F.   | 1                   | 1             | 2                     | 9                               | 34               | 46       | 22                 | 10      | 22            | 2              | 4         | 1                    | ...          | ...                | ...           | ...               | 7                     | ...                       | ...          | 1              | 147                        |
|  | ...                   | ...   | ...                 | ...    | ...          | M.   | 147                 | 145           | ...                   | ...                             | ...              | ...      | ...                | ...     | ...           | ...            | ...       | ...                  | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            |                            |
| Printing and publish-<br>ing.  | 46                    | 40    | 4                   | 10     | 18           | F.   | 44                  | 41            | 3                     | 19                              | 11               | ...      | 33                 | ...     | 1             | 11             | 19        | 44                   | ...          | ...                | ...           | ...               | 21                    | 5                         | 1            | 44             | ...                        |
|  | ...                   | ...   | ...                 | ...    | ...          | M.   | 672                 | 563           | 79                    | 212                             | 125              | 136      | 203                | 31      | 94            | 88             | 135       | 664                  | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            | 66                         |
| Roofing dealers  | 3                     | 3     | ...                 | 10     | ...          | M.   | 47                  | 47            | ...                   | 8                               | 39               | 16       | 11                 | 15      | 1             | 3              | 8         | 12                   | 35           | ...                | ...           | ...               | ...                   | ...                       | ...          | 47             | ...                        |
| Second-hand stores   | 1                     | 1     | ...                 | ...    | ...          | M.   | 1                   | 1             | ...                   | ...                             | 1                | 1        | ...                | ...     | 1             | ...            | ...       | 1                    | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | 1              | ...                        |
| Seeds  | 3                     | 3     | ...                 | ...    | ...          | F.   | 281                 | 282           | 19                    | 213                             | 66               | 10       | 271                | 7       | 8             | 26             | 240       | ...                  | 281          | ...                | ...           | ...               | 4                     | ...                       | 281          | ...            |                            |
| Sewing machines  | ...                   | ...   | ...                 | ...    | ...          | M.   | 118                 | 115           | 3                     | 91                              | 25               | 61       | 57                 | 27      | 37            | 30             | 24        | 5                    | 113          | ...                | ...           | ...               | 10                    | 3                         | ...          | 118            | ...                        |
|  | 4                     | 4     | ...                 | 9      | 46           | F.   | 3                   | 3             | ...                   | 3                               | 6                | 4        | 5                  | 2       | 3             | 3              | 4         | 1                    | 7            | ...                | 3             | ...               | 1                     | ...                       | ...          | 3              | ...                        |
| Stencils and stamps.   | ...                   | ...   | ...                 | 1      | 10           | M.   | 1                   | 1             | ...                   | 1                               | ...              | ...      | 1                  | ...     | ...           | ...            | 1         | 1                    | 1            | ...                | ...           | ...               | ...                   | ...                       | ...          | 1              | ...                        |
|  | 2                     | 2     | ...                 | 11     | 57           | M.   | 26                  | 26            | ...                   | 21                              | 5                | 12       | 14                 | ...     | 12            | 12             | 2         | 26                   | ...          | ...                | ...           | ...               | ...                   | ...                       | 26           | ...            |                            |
| Storage companies  | 2                     | 2     | ...                 | 11     | 43           | M.   | 111                 | 111           | ...                   | 63                              | 48               | 74       | 37                 | 15      | 59            | 26             | 11        | 79                   | ...          | 32                 | ...           | 40                | ...                   | ...                       | 111          | ...            |                            |
| Street railways  | 1                     | 1     | ...                 | 8      | ...          | F.   | 1                   | 1             | ...                   | 1                               | ...              | 1        | ...                | ...     | 8             | 12             | ...       | 1                    | ...          | ...                | ...           | ...               | ...                   | ...                       | 1            | ...            |                            |
| Subscription agencies  | 32                    | 30    | 2                   | 10     | 5            | F.   | 58                  | 58            | ...                   | 49                              | 6                | 3        | 55                 | ...     | 3             | 1              | 51        | 58                   | ...          | ...                | ...           | ...               | 2                     | ...                       | 57           | ...            |                            |
| Tailoring  | 11                    | 11    | ...                 | 10     | 46           | F.   | 67                  | 66            | ...                   | 29                              | 1                | ...      | 6                  | ...     | 13            | 1              | 5         | 6                    | ...          | ...                | ...           | ...               | ...                   | ...                       | 6            | ...            |                            |
| Teas, coffee and spices  | ...                   | ...   | ...                 | ...    | ...          | M.   | 47                  | 41            | ...                   | ...                             | 18               | 16       | 31                 | 3       | 3             | 11             | 20        | 47                   | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | 47             | ...                        |

|  |     |     |            |          |                |                |           |              |              |             |                |          |             |              |              |            |           |         |                |
|--|-----|-----|------------|----------|----------------|----------------|-----------|--------------|--------------|-------------|----------------|----------|-------------|--------------|--------------|------------|-----------|---------|----------------|
| Telegraph and tele-<br>phone companies...  | 2   | 2   | 952        | F.<br>M. | 45<br>110      | 45<br>60       | 50        | 40<br>93     | 5<br>17      | 23          | 43<br>85       | 6        | 21          | 10<br>31     | 35<br>52     | 45<br>110  | 2<br>19   | 1<br>9  | 45<br>110      |
| Undertaking                                | 7   | 7   | ...        | M.       | 13             | 13             | ...       | 10           | 3            | 1           | 12             | ...      | ...         | 11           | 2            | 2          | ...       | ...     | 13             |
| Vessel supply stores                       | 2   | 2   | ...        | F.<br>M. | 4<br>35        | 4<br>35        | ...       | 1<br>9       | ...          | 7           | 1<br>3         | 8        | ...         | 4<br>17      | 3            | ...        | ...       | ...     | 35             |
| Vessels and tugs                           | 5   | 5   | ...        | F.<br>M. | 4<br>215       | 4<br>215       | ...       | ...          | 13           | 15          | 18             | 4        | 11          | 14           | ...          | 1<br>36    | 3<br>13   | 3<br>3  | 4<br>215       |
| Wool, hides and pelts                      | 6   | 6   | ...        | M.       | 49             | 48             | 1         | 6            | 25           | 40          | 9              | 12       | 27          | 3            | 6            | 6          | 3         | ...     | 49             |
| Woodenware                                 | 1   | 1   | ...        | M.       | 1              | 1              | ...       | ...          | 1            | ...         | 1              | ...      | ...         | ...          | 1            | ...        | ...       | 1       | ...            |
| Total, city                                | 838 | 782 | 30 9 10 16 | F.<br>M. | 1,293<br>6,765 | 1,249<br>6,453 | 44<br>312 | 717<br>2,853 | 385<br>2,153 | 71<br>2,700 | 1,141<br>2,820 | 7<br>707 | 29<br>1,536 | 383<br>1,414 | 714<br>1,315 | 304<br>934 | 45<br>343 | 2<br>89 | 1,285<br>6,743 |
| DOWAGIAC:                                  |     |     |            |          |                |                |           |              |              |             |                |          |             |              |              |            |           |         |                |
| Agricultural imple-<br>ments               | 1   | 1   | ...        | M.       | 3              | 3              | ...       | ...          | ...          | ...         | ...            | ...      | 1           | 1            | 1            | ...        | ...       | ...     | 3              |
| Bakeries                                   | 1   | 1   | ...        | F.<br>M. | 1<br>1         | 1<br>1         | ...       | 1<br>1       | ...          | 1           | 1              | ...      | ...         | 1            | ...          | 1          | ...       | ...     | 1              |
| Barber shops and bath<br>rooms             | 2   | 2   | ...        | M.       | 2              | 2              | ...       | 2            | ...          | 1           | 1              | ...      | 1           | 1            | ...          | 1          | ...       | ...     | 2              |
| Blacksmithing and<br>horse-shoeing         | 1   | 1   | ...        | M.       | 1              | 1              | ...       | ...          | 1            | ...         | 1              | ...      | ...         | 1            | ...          | 1          | ...       | ...     | 1              |
| Boots and shoes                            | 2   | 2   | ...        | M.       | 2              | 2              | ...       | 2            | ...          | 1           | 1              | 1        | ...         | ...          | 1            | 2          | ...       | ...     | 2              |
| Clothing stores                            | 2   | 2   | ...        | M.       | 4              | 4              | ...       | 3            | 1            | 2           | 2              | ...      | 2           | 2            | ...          | 4          | 1         | ...     | 4              |
| Dress-making                               | 3   | 3   | ...        | F.       | 7              | 7              | ...       | 7            | ...          | 1           | 6              | ...      | ...         | 2            | 3            | 7          | ...       | ...     | 7              |
| Drugs                                      | 2   | 2   | ...        | F.<br>M. | 1<br>3         | 1<br>3         | ...       | 1<br>3       | ...          | 2           | 1              | 1        | ...         | 1            | 1            | 1          | ...       | ...     | 1              |
| Dry goods                                  | 3   | 3   | ...        | F.<br>M. | 4<br>8         | 4<br>8         | ...       | 4<br>8       | ...          | ...         | 4<br>5         | ...      | 1<br>2      | 1<br>4       | 2            | ...        | ...       | ...     | 4              |
| Groceries                                  | 7   | 7   | ...        | M.       | 11             | 11             | ...       | 10           | 1            | 5           | 4              | 3        | 2           | 3            | 3            | 9          | 1         | ...     | 11             |
| Hardware, stoves and<br>tinware            | 3   | 3   | ...        | M.       | 6              | 6              | ...       | 6            | ...          | 3           | 3              | ...      | 3           | 1            | 2            | 6          | ...       | ...     | 6              |
| Harness                                    | 2   | 2   | ...        | M.       | 4              | 4              | ...       | 3            | 1            | 3           | 1              | ...      | 3           | 1            | ...          | 4          | ...       | ...     | 4              |
| Hotels, boarding-houses<br>and restaurants | 4   | 4   | ...        | F.<br>M. | 11<br>3        | 11<br>3        | ...       | 11<br>3      | ...          | 2           | 9              | ...      | ...         | 11           | ...          | ...        | ...       | ...     | 11             |
| Livery stables                             | 3   | 3   | ...        | M.       | 5              | 5              | ...       | 5            | ...          | ...         | 5              | ...      | ...         | 4            | ...          | 5          | ...       | ...     | 5              |

TABLE NO. 38.—Continued.

| Class of Business.                     | Number in each Class.                            |                                   | Hrs per Day. |               | Number of Employés.   |                                 |          | Nativity. |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |  |
|--|--|-----------------------------------|--------------|---------------|-----------------------|---------------------------------|----------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--|--|
|  | Sanitary Condition.                              |                                   | Sex.         | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.  | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |  |  |
|  |  |                                   |              |               |                       |                                 |          |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |  |
| DOWAGIAC—Cont'd:                       | Lumber yards.....                                | 2                                 | 2            | 10            | M.                    | 8                               | 8        |           | 6        | 2                | 1             | 5                  | 2         |                      |              | 8                  |               |                   |                       |                           |              |                |                            |  |  |
|  | Meat markets.....                                | 4                                 | 4            | 12 45         | M.                    | 4                               | 4        |           | 3        | 1                |               | 2                  | 2         |                      |              | 4                  |               |                   |                       |                           |              |                |                            |  |  |
|  | Millinery stores.....                            | 2                                 | 2            | 9             | F.                    | 6                               | 5        |           | 1        | 5                |               |                    | 3         | 1                    | 6            |                    |               |                   |                       |                           |              |                |                            |  |  |
|  | Painting, paper-hang-<br>ing and decorating..... | 2                                 | 2            | 10            | M.                    | 3                               | 3        |           | 2        | 1                | 1             | 1                  |           |                      | 1            | 3                  |               |                   |                       |                           |              |                |                            |  |  |
|  | Printing and publish-<br>ing.....                | 2                                 | 2            | 10            | { F.<br>M. }          | 1<br>4                          | 1<br>4   |           | 3<br>1   | 1<br>1           | 1<br>1        | 2<br>1             | 1         |                      | 1            | 1                  | 4             |                   |                       |                           |              |                |                            |  |  |
|  | Tailoring.....                                   | 2                                 | 2            | 10            | { F.<br>M. }          | 6<br>6                          | 5<br>1   |           | 3<br>4   | 3<br>2           | 2<br>4        | 2<br>1             | 3<br>1    | 1                    | 6            |                    |               |                   |                       |                           |              |                |                            |  |  |
|  | Windmill and pump<br>dealers.....                | 1                                 | 1            | 10            | M.                    | 6                               | 6        |           | 5        | 1                | 1             | 4                  |           |                      | 1            | 6                  |               |                   |                       |                           |              |                |                            |  |  |
|  | Total, city.....                                 | 51                                | 51           | 11 9          | { F.<br>M. }          | 37<br>84                        | 35<br>72 | 1<br>9    | 7<br>45  | 30<br>34         |               | 5<br>14            | 21<br>28  | 9<br>10              | 37<br>81     | 1                  | 1             | 6                 |                       | 3                         | 2            |                |                            |  |  |
|  | EAST SAGINAW :                                   |                                   |              |               |                       |                                 |          |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |  |  |
|  |  | Agricultural imple-<br>ments..... | 3            | 3             | 12 30                 | M.                              | 6        | 5         |          | 2                | 3             | 1                  |           | 5                    |              |                    |               |                   | 6                     |                           |              | 1              |                            |  |  |
| Art stores.....                        |  | 1                                 | 1            | 10            | { F.<br>M. }          | 1<br>2                          | 1<br>2   |           |          | 1<br>2           |               |                    | 1<br>1    | 1                    | 2            |                    |               |                   |                       |                           |              |                |                            |  |  |
| Bakeries.....                          |  | 3                                 | 3            | 11 23         | { F.<br>M. }          | 4<br>9                          | 2<br>5   | 2<br>4    | 1<br>4   | 4<br>8           | 1             |                    | 4<br>8    |                      | 4<br>9       |                    |               |                   | 1                     |                           |              |                |                            |  |  |
| Bankers and brokers.....               |  | 3                                 | 3            | 8             | M.                    | 9                               | 9        |           | 3        | 6                | 3             |                    | 4         | 2                    | 9            |                    |               |                   | 9                     |                           |              |                |                            |  |  |
| Barber shops and bath-<br>rooms.....   |  | 7                                 | 3            | 13 44         | M.                    | 15                              | 15       |           | 6        | 9                | 1             | 3                  | 7         | 4                    | 15           |                    |               |                   |                       |                           |              |                |                            |  |  |
| Blacksmithing and<br>horseshoeing..... |  | 9                                 | 8            | 1 10          | M.                    | 25                              | 9        | 16        | 14       | 11               | 7             | 8                  | 8         | 2                    | 25           |                    |               |                   | 1                     |                           |              |                |                            |  |  |

[illegible]



TABLE No. 83.—Continued.

| Class of Business.  | Number in each Class. |                       | Sanitary Condition.             |           | H's per Day. | Sex.     | Number of Employés. |          |         | Nativity.     |                | Civil Condition. |                      | Number of Employés |                    |               |                   |                       |                           |              |                |                            |  |  |
|---|-----------------------|-----------------------|---------------------------------|-----------|--------------|----------|---------------------|----------|---------|---------------|----------------|------------------|----------------------|--------------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--|--|
|   | Total Number.         | Over 16 years of age. | Sixteen years of age and under. | Native.   |              |          | Foreign.            | Married. | Single. | Owning Homes. | Renting Homes. | Boarding.        | Living with Parents. | Paid Weekly.       | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |  |  |
|   |                       |                       |                                 |           |              |          |                     |          |         |               |                |                  |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| EAST SAGINAW— <i>Con.</i> :<br>Hotels, board'g houses {<br>and restaurants..... | 49                    | 166<br>94             | 156<br>94                       | 100<br>67 | 65<br>58     | 10<br>15 | 155<br>79           | 1<br>4   | 3       | 164<br>80     | 1<br>7         | 102<br>51        |                      | 64<br>43           |                    |               | 3<br>3            |                       |                           |              |                |                            |  |  |
| Jewelry stores.....   | 4                     | 4                     | 11                              | 10        | 1            | 4        | 7                   | 1        |         | 4             | 5              | 11               |                      |                    |                    | 1             |                   |                       |                           |              |                |                            |  |  |
| Laundries.....  | 1                     | 1                     | 10                              | 10        |              | 2        | 8                   |          | 6       | 2             | 2              | 10               |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Leather and findings..  | 1                     |                       | 3                               | 3         |              |          | 3                   |          |         | 3             |                | 3                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Livery stables.....   | 11                    | 3                     | 26                              | 26        | 11           | 15       | 13                  | 4        | 4       | 17            | 1              | 26               |                      |                    |                    | 1             |                   |                       |                           |              |                |                            |  |  |
| Millinery stores.....   | 4                     | 4                     | 18                              | 18        | 15           | 3        | 18                  |          |         | 10            | 8              | 17               |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Musical instruments...  | 1                     | 1                     | 2                               | 2         | 2            |          | 2                   |          |         |               |                | 2                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| News depot.....   | 1                     | 1                     | 5                               | 4         | 1            | 5        |                     |          | 5       |               |                | 5                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Notions and fancy goods   | 1                     | 1                     | 1                               | 1         | 1            |          | 1                   |          |         |               | 1              | 1                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Meat markets.....   | 11                    | 5                     | 35                              | 34        | 2            |          | 2                   |          |         | 2             | 4              | 19               |                      | 1                  |                    |               |                   |                       |                           |              |                |                            |  |  |
| Paper dealer.....   | 1                     | 1                     | 4                               | 3         | 1            | 3        | 1                   | 2        |         | 1             | 1              | 4                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Painting, paper-hang-<br>ing and decorating..                                   | 1                     | 1                     | 9                               | 6         | 3            | 8        | 1                   | 6        | 1       | 2             |                | 9                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Paints and oils.....  | 2                     | 1                     | 12                              | 5         | 7            | 9        | 3                   | 1        | 9       | 1             | 1              | 12               |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Photographing.....  | 1                     | 1                     | 3                               | 2         | 1            |          | 3                   |          |         | 3             |                | 3                |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |
| Plumbing and gas fit-<br>ting.....  | 3                     | 3                     | 18                              | 18        |              | 8        | 10                  | 1        | 5       | 11            | 1              | 18               |                      |                    |                    |               |                   |                       |                           |              |                |                            |  |  |

|   |     |     |     |                  |                  |              |              |          |           |            |          |          |            |           |            |          |         |        |              |
|---|-----|-----|-----|------------------|------------------|--------------|--------------|----------|-----------|------------|----------|----------|------------|-----------|------------|----------|---------|--------|--------------|
| Printing and publishing.....              | 3   | 3   | 10  | { F. }<br>{ M. } | 5<br>165         | 5<br>113     | 5<br>32      | 5<br>113 | 5<br>54   | 5<br>111   | 5<br>15  | 5<br>32  | 5<br>51    | 5<br>64   | 5<br>165   | 5<br>1   | 5<br>10 | 5<br>1 | 5<br>165     |
| Repair shops.....                         | 3   | 2   | 1   | 10               | M.               | 15           | 14           | 1        | 15        | 7          | 8        | 9        | 2          | 1         | 15         |          |         |        | 15           |
| Second-hand stores.....                   | 5   | ... | 4   | 11 48            | M.               | 5            | 4            | 1        | 4         | 1          | 3        | 2        | 1          | 2         | 1          | 5        |         |        | 5            |
| Sewing machines.....                      | 1   | 1   | ... | 8                | { F. }<br>{ M. } | 2<br>6       | 2<br>6       | ...      | 1<br>4    | 1<br>5     | 1<br>1   | 6        | 2          | ...       | 2<br>6     | 2<br>6   | 1       |        | 6            |
| Sporting goods.....                       | 1   | ... | 1   | 11               | { F. }<br>{ M. } | 1<br>2       | ...          | 1<br>2   | ...       | 1<br>2     | 1<br>2   | ...      | 2<br>2     | 1         | 1<br>2     | 1<br>2   | 1       |        | 1            |
| Street railway companies.....             | 1   | ... | 1   | 12               | M.               | 17           | 17           | ...      | 11        | 6          | 3        | 12       | 2          | ...       | ...        | 17       | 1       |        | 17           |
| Tailoring.....                            | 7   | 6   | 1   | 10 2             | { F. }<br>{ M. } | 7<br>20      | 7<br>20      | 7<br>20  | 7<br>16   | 7<br>11    | 7<br>4   | 8<br>8   | 3<br>8     | 3<br>20   | 7<br>20    | 3<br>7   | 2<br>1  |        | 7            |
| Teas, coffee and spices.....              | 2   | 1   | 1   | 10 21            | M.               | 11           | 10           | 1        | 11        | ...        | 3        | 1        | 3          | 4         | 3          | 11       | 2       |        | 11           |
| Trunk dealers.....                        | 1   | 1   | ... | 10               | M.               | 1            | 1            | ...      | 1         | 1          | ...      | ...      | 1          | ...       | 1          | 1        | ...     |        | 1            |
| Wool, hides and pelts.....                | 1   | 1   | ... | 10               | M.               | 4            | 4            | ...      | 1         | 3          | 2        | 2        | 2          | ...       | 4          | 2        | 1       |        | 4            |
| Total, city.....                          | 240 | 155 | 85  | 20 11 21         | { F. }<br>{ M. } | 280<br>1,133 | 238<br>1,050 | 12<br>83 | 14<br>433 | 202<br>648 | 2<br>173 | 7<br>273 | 202<br>451 | 63<br>217 | 209<br>969 | 68<br>21 | 104     | 19     | 243<br>1,110 |
| EAST TAWAS:                               |     |     |     |                  |                  |              |              |          |           |            |          |          |            |           |            |          |         |        |              |
| Booming and rafting logs.....             | 1   | ... | ... | 10               | M.               | 5            | 5            | ...      | 5         | 2          | 3        | 2        | 3          | ...       | ...        | 5        | ...     |        | 5            |
| Boots and shoes.....                      | 2   | 1   | ... | 10 40            | M.               | 3            | 3            | ...      | 3         | ...        | 3        | 2        | 1          | ...       | 3          | ...      | 2       | 1      | 3            |
| Contractors, carpenters and builders..... | 1   | 1   | ... | 10               | { F. }<br>{ M. } | 1<br>4       | 1<br>4       | ...      | 1<br>3    | 1<br>3     | 1<br>3   | ...      | 1          | 1         | 1<br>4     | 1<br>4   | ...     | 3      | 1            |
| Drugs.....                                | 1   | 1   | ... | 10               | M.               | 1            | 1            | ...      | 1         | ...        | 1        | ...      | 1          | ...       | 1          | ...      | ...     | 1      | 1            |
| Dry-goods.....                            | 2   | 1   | 1   | 12               | M.               | 5            | 5            | ...      | 1         | 4          | 1        | 4        | 1          | 3         | 1          | ...      | 5       | 2      | 5            |
| Furniture stores.....                     | 1   | 1   | ... | 10               | M.               | 1            | 1            | ...      | 1         | ...        | 1        | ...      | ...        | ...       | ...        | 1        | ...     | ...    | 1            |
| General stores.....                       | 3   | 3   | ... | 12               | M.               | 6            | 6            | ...      | 3         | 3          | ...      | 3        | 2          | 1         | 4          | 2        | ...     | 1      | 6            |
| Groceries.....                            | 2   | 1   | 1   | 12               | M.               | 2            | 2            | ...      | 1         | 1          | 1        | ...      | 1          | ...       | 2          | ...      | ...     | ...    | 2            |
| Hardware, stoves and tinware.....         | 1   | 1   | ... | 10               | M.               | 1            | 1            | ...      | 1         | 1          | ...      | ...      | 1          | ...       | 1          | ...      | ...     | ...    | 1            |
| Harness.....                              | 1   | 1   | ... | 10               | M.               | 2            | 2            | ...      | ...       | ...        | ...      | ...      | 2          | ...       | ...        | 2        | 2       | ...    | 2            |

TABLE NO. 88.—Continued.

| Class of Business.                        | Sanitary Condition.   |       | Hrs per Day. | Number of Employés. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |       |        |          |
|---|-----------------------|-------|--------------|---------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|-------|--------|----------|
|   | Number In each Class. |       |              | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |       |        |          |
|   | Good.                 | Fair. |              |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            | Poor. | Hours. | Minutes. |
| EAST TAWAS—Cont'd:                        |                       |       |              |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |       |        |          |
| Hotels, board'g houses and restaurants... | 3                     | 2     | 1            | 12                  |                       | 4                               | 1         | 3        | 1                | 3       |                    | 1              | 3         |                      | 1            | 3                  |               | 1                 |                       |                           |              |                |                            | 1     |        |          |
| Lumber inspectors.....                    | 1                     |       |              | 10                  |                       | 2                               |           | 2        |                  | 2       |                    |                | 2         |                      |              |                    |               | 2                 |                       |                           |              |                |                            | 4     |        |          |
| Meat markets.....                         | 3                     | 2     | 1            | 12                  |                       | 4                               | 2         | 2        | 1                | 3       | 1                  |                | 2         | 2                    | 2            |                    | 2             |                   | 2                     |                           |              |                |                            | 2     |        |          |
| Millinery stores.....                     | 1                     | 1     | 10           |                     |                       | 2                               | 2         |          |                  | 2       |                    |                | 2         | 2                    | 2            |                    | 2             |                   | 2                     |                           | 1            |                |                            | 4     |        |          |
| Printing and publishing                   | 1                     | 1     | 10           |                     |                       | 2                               | 2         |          |                  | 2       |                    |                | 1         | 2                    | 2            |                    | 1             |                   | 2                     |                           |              |                |                            | 2     |        |          |
| Railroading.....                          | 1                     |       | 10           |                     |                       | 130                             |           |          |                  | 2       |                    |                |           | 2                    | 2            |                    | 130           |                   | 2                     |                           |              |                |                            | 130   |        |          |
| Tailoring .....                           | 1                     | 1     | 10           |                     |                       | 2                               |           |          |                  | 2       |                    |                |           | 2                    | 2            |                    |               |                   | 2                     |                           |              |                |                            | 2     |        |          |
| Total, town.....                          | 26                    | 17    | 5            | 10 15               |                       | 170                             | 4         | 19       | 21               | 14      | 26                 | 8              | 8         | 4                    | 4            | 18                 | 4             | 4                 | 8                     | 20                        | 150          |                | 4                          | 1     | 8      | 170      |
| ESCANABA:                                 |                       |       |              |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |       |        |          |
| Bakeries .....                            | 1                     | 1     | 14           |                     |                       | 1                               | 1         | 1        |                  | 1       |                    |                |           | 1                    |              | 1                  |               |                   |                       |                           |              |                |                            | 1     |        |          |
| Bankers and brokers...                    | 1                     | 1     | 8            |                     |                       | 2                               |           | 1        | 1                |         |                    |                |           |                      |              | 2                  |               |                   |                       |                           |              |                |                            | 1     |        |          |
| Barber shops and bath rooms.....          | 2                     | 2     | 14           |                     |                       | 3                               |           |          |                  | 1       |                    |                |           | 2                    |              | 2                  |               |                   |                       |                           |              |                |                            | 2     |        |          |
| Blacksmithing and horse-shoeing.....      | 1                     | 1     | 10           |                     |                       | 1                               |           | 1        |                  |         |                    |                |           | 1                    |              | 1                  |               |                   |                       |                           |              |                |                            | 3     |        |          |
| Boots and shoes.....                      | 3                     | 3     | 12 40        |                     |                       | 3                               |           | 1        | 2                | 1       | 2                  |                |           | 2                    | 1            | 2                  |               |                   |                       |                           |              |                |                            | 3     |        |          |
| Clothing stores.....                      | 1                     | 1     | 15           |                     |                       | 3                               |           | 3        |                  |         |                    |                |           | 3                    |              | 3                  |               |                   |                       |                           |              |                |                            | 3     |        |          |
|   |                       |       |              |                     |                       | 5                               |           | 1        | 4                |         |                    |                |           | 4                    |              | 4                  |               |                   |                       |                           |              |                |                            | 5     |        |          |

|  |    |    |       |            |          |          |         |          |         |          |         |          |         |         |          |        |          |
|--|----|----|-------|------------|----------|----------|---------|----------|---------|----------|---------|----------|---------|---------|----------|--------|----------|
| Drugs.....                                   | 3  | 3  | 14    | M.         | 3        | 3        | 3       | 1        | 1       | 1        | 1       | 1        | 1       | 1       | 2        | 1      | 3        |
| Dry goods.....                               | 6  | 6  | 13 50 | { F.<br>M. | 2<br>10  | 2<br>10  | 5       | 2<br>5   | 1<br>7  | 1        | 1       | 7        | 2       | 2       | 10       | 1      | 2<br>10  |
| Express companies.....                       | 1  | 1  | 14    | M.         | 1        | 1        | 1       | 1        | 1       | 1        | 1       | 1        | 1       | 1       | 1        | 1      | 3        |
| Flour, feed and grain.....                   | 2  | 2  | 15 30 | M.         | 3        | 3        | 1       | 2        | 1       | 2        | 3       | 3        | 3       | 3       | 3        | 3      | 3        |
| Furniture dealers.....                       | 2  | 2  | 14    | M.         | 3        | 3        | 2       | 1        | 3       | 1        | 1       | 1        | 1       | 2       | 1        | 1      | 3        |
| Groceries.....                               | 10 | 10 | 14 30 | M.         | 18       | 18       | 12      | 6        | 7       | 11       | 4       | 4        | 5       | 2       | 16       | 1      | 18       |
| Hardware, stoves and tinware.....            | 2  | 2  | 11    | M.         | 6        | 6        | 2       | 4        | 2       | 4        | 1       | 2        | 2       | 1       | 3        | 3      | 6        |
| Hotels, boarding-houses and restaurants..... | 3  | 3  | 16    | { F.<br>M. | 16<br>4  | 16<br>4  | 6<br>3  | 10       | 2       | 1        | 16      | 16       | 4       | 2       | 16       | 4      | 16       |
| Jewelry stores.....                          | 2  | 2  | 11 30 | M.         | 2        | 2        | 1       | 1        | 2       | 2        | 2       | 2        | 2       | 2       | 2        | 2      | 2        |
| Laundries.....                               | 1  | 1  | 16    | F.         | 1        | 1        | 1       | 1        | 1       | 1        | 1       | 1        | 1       | 1       | 1        | 1      | 1        |
| Livery stables.....                          | 1  | 1  | 18    | M.         | 3        | 3        | 2       | 1        | 3       | 3        | 3       | 3        | 3       | 3       | 3        | 3      | 3        |
| Meat markets.....                            | 2  | 2  | 15 24 | M.         | 15       | 13       | 2       | 7        | 8       | 2        | 13      | 3        | 12      | 9       | 6        | 1      | 15       |
| Millinery stores.....                        | 2  | 2  | 12 30 | F.         | 4        | 4        | 4       | 4        | 4       | 4        | 4       | 1        | 3       | 1       | 3        | 1      | 4        |
| Printing and publishing.....                 | 1  | 1  | 10    | { F.<br>M. | 1<br>3   | 1<br>3   | 1       | 1        | 1       | 1        | 1       | 1        | 1       | 1       | 1        | 1      | 1        |
| Tailoring.....                               | 2  | 2  | 10 30 | { F.<br>M. | 1<br>7   | 1<br>7   | 1       | 7        | 1       | 2        | 1       | 2        | 3       | 1       | 1        | 2      | 7        |
| Total, town.....                             | 49 | 49 | 13 53 | { F.<br>M. | 29<br>93 | 20<br>90 | 15<br>3 | 13<br>43 | 2<br>20 | 22<br>50 | 5<br>11 | 22<br>56 | 5<br>11 | 7<br>81 | 22<br>60 | 1<br>6 | 29<br>92 |
| FRANKLIN:                                    |    |    |       |            |          |          |         |          |         |          |         |          |         |         |          |        |          |
| General store.....                           | 1  | 1  | 12    | M.         | 12       | 12       | 9       | 3        | 6       | 6        | 1       | 4        | 6       | 1       | 12       | 1      | 12       |
| Groceries.....                               | 1  | 1  | 11    | M.         | 1        | 1        | 1       | 1        | 1       | 1        | 1       | 1        | 1       | 1       | 1        | 1      | 1        |
| Total, town.....                             | 2  | 2  | 11 55 | { F.<br>M. | 13<br>33 | 13<br>33 | 9       | 4        | 7       | 6        | 1       | 5        | 6       | 1       | 13       | 1      | 13       |

TABLE NO. 33.—Continued.

| Class of Business.                     | Number in each Class. |       | Sanitary Condition. |          | Hrs per Day.  |                       | Sex. | Number of Employés.             |         |          | Nativity. |         | Civil Condition. |                | Number of Employés |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|---------------------|----------|---------------|-----------------------|------|---------------------------------|---------|----------|-----------|---------|------------------|----------------|--------------------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Good.                 | Poor. | Hours.              | Minutes. | Total Number. | Over 16 years of age. |      | Sixteen years of age and under. | Native. | Foreign. | Married.  | Single. | Owning Homes.    | Renting Homes. | Boarding.          | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  |                       |       |                     |          |               |                       |      |                                 |         |          |           |         |                  |                |                    |                      |              |                    |               |                   |                       |                           |              |                |                            |
| GRAND HAVEN:                           |                       |       |                     |          |               |                       |      |                                 |         |          |           |         |                  |                |                    |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Barber shops and bath rooms            | 4                     | 3     | 1                   | 13       | 24            | M.                    | 5    | 3                               | 2       | 4        | 1         | 5       |                  |                | 3                  | 2                    | 5            |                    |               |                   |                       |                           |              |                |                            |
| Blacksmithing and horseshoeing         | 2                     | 2     |                     | 10       |               | M.                    | 5    | 5                               |         | 2        | 3         | 2       | 2                |                | 2                  | 1                    | 3            |                    | 2             |                   |                       |                           |              |                |                            |
| Boots and shoes                        | 3                     | 3     |                     | 10       |               | M.                    | 3    | 3                               |         | 1        | 2         | 1       | 2                |                |                    | 1                    | 3            |                    |               |                   |                       |                           |              |                |                            |
| Cigars and tobacco                     | 1                     | 1     |                     | 12       |               | F.                    | 1    | 1                               |         |          |           | 1       |                  |                |                    | 1                    | 1            |                    |               |                   |                       |                           |              |                |                            |
| Coal and wood yards                    | 1                     | 1     |                     | 10       |               | M.                    | 3    | 3                               |         | 3        |           | 3       |                  |                |                    |                      | 3            |                    |               |                   |                       |                           |              |                |                            |
| Contractors, carpenters and builders   | 5                     | 5     |                     | 10       |               | M.                    | 21   | 21                              |         | 8        | 13        | 17      | 4                | 18             |                    | 1                    | 2            | 21                 |               |                   |                       |                           |              |                |                            |
| City laborers and water works employes | 2                     | 2     |                     | 11       | 6             | M.                    | 9    | 6                               | 3       | 4        | 5         | 1       | 3                | 3              |                    |                      | 3            |                    | 9             |                   |                       |                           |              |                |                            |
| Clothing                               | 3                     | 3     |                     | 12       | 40            | M.                    | 3    | 2                               | 1       | 1        | 2         |         | 3                |                |                    | 1                    | 2            | 3                  |               |                   |                       |                           |              |                |                            |
| Drugs                                  | 1                     | 1     |                     | 10       |               | M.                    | 1    | 1                               |         | 1        |           |         | 1                |                |                    |                      | 1            | 1                  |               |                   |                       |                           |              |                |                            |
| Dry goods                              | 3                     | 3     |                     | 12       | 45            | F.                    | 6    | 6                               |         | 5        | 1         |         | 6                |                |                    |                      | 6            | 6                  |               |                   |                       |                           |              |                |                            |
| Express companies                      | 1                     | 1     |                     | 10       |               | M.                    | 2    | 2                               | 2       | 1        | 1         |         | 2                |                |                    | 2                    |              | 2                  |               |                   |                       |                           |              |                |                            |
| Fishing                                | 1                     | 1     |                     | 10       |               | M.                    | 5    | 5                               |         | 4        | 1         | 3       |                  | 2              |                    |                      |              |                    | 5             |                   |                       |                           |              |                |                            |
| Flour, feed and grain                  | 1                     | 1     |                     | 10       |               | M.                    | 1    | 1                               |         | 1        |           |         | 1                |                |                    | 1                    |              | 1                  |               |                   |                       |                           |              |                |                            |
| Fruit, confectionery and canned goods  | 1                     | 1     |                     | 12       |               | M.                    | 1    | 1                               |         |          |           |         | 1                |                |                    | 1                    |              | 1                  |               |                   |                       |                           |              |                |                            |
| Furniture and undertaking              | 1                     | 1     |                     | 12       |               | M.                    | 3    | 3                               |         | 1        | 2         | 3       |                  | 3              |                    |                      | 3            |                    |               |                   |                       |                           |              |                |                            |
| Gas companies                          | 1                     | 1     |                     | 12       |               | M.                    | 2    | 2                               |         | 2        |           |         | 1                |                |                    | 2                    |              |                    | 2             |                   |                       |                           |              |                |                            |
| General stores                         | 2                     | 2     |                     | 12       |               | F.                    | 2    | 2                               |         | 1        | 2         |         | 2                |                |                    | 1                    |              | 2                  |               |                   |                       |                           |              |                |                            |

[illegible]

TABLE NO. 88.—Continued.

| Class of Business.                        | Number in each Class. |       | Sanitary Condition. |          | Hrs per Day. |          | Sex.          |                       | Number of Employees.            |         |          | Nativity. |         | Civil Condition. |                | Number of Employees |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|---------------------|----------|--------------|----------|---------------|-----------------------|---------------------------------|---------|----------|-----------|---------|------------------|----------------|---------------------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Good.                 | Fair. | Poor.               | Minutes. | Hours.       | Minutes. | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign. | Married.  | Single. | Owning Homes.    | Renting Homes. | Boarding.           | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
| GRAND RAPIDS—Con.:                        |                       |       |                     |          |              |          |               |                       |                                 |         |          |           |         |                  |                |                     |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bankers and brokers...                    | 5                     | 5     | ...                 | 7 49     | M.           |          | 34            | 34                    | ...                             | 27      | 7        | 18        | 16      | 9                | 8              | 10                  | 7                    | ...          | 2                  | 32            | ...               | ...                   | ...                       | ...          | 34             | ...                        |
| Barber shops and bath rooms...            | 9                     | 9     | ...                 | 12       | M.           |          | 31            | 31                    | ...                             | 28      | 3        | 21        | 9       | 2                | 20             | 9                   | ...                  | 29           | ...                | 2             | ...               | ...                   | ...                       | ...          | 31             | ...                        |
| Blacksmithing & horse shoeing...          | 16                    | 16    | ...                 | 10       | M.           |          | 40            | 40                    | ...                             | 25      | 15       | 21        | 18      | 11               | 10             | 18                  | 1                    | 40           | ...                | ...           | ...               | ...                   | ...                       | ...          | 40             | ...                        |
| Bleachery...                              | 1                     | 1     | ...                 | 10       | F.           |          | 2             | 2                     | ...                             | 2       | ...      | ...       | ...     | ...              | ...            | ...                 | 2                    | 2            | ...                | ...           | ...               | ...                   | ...                       | ...          | 1              | ...                        |
| Books and stationery...                   | 5                     | 5     | ...                 | 11 14    | F.           |          | 2             | 2                     | ...                             | 2       | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | 2            | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Building stone and monument dealers...    | 3                     | 3     | ...                 | 10       | M.           |          | 12            | 12                    | ...                             | 8       | 4        | 8         | 4       | 4                | 5              | 3                   | ...                  | 9            | ...                | 13            | ...               | ...                   | ...                       | ...          | 10             | ...                        |
| Bottling works...                         | 1                     | 1     | ...                 | 10       | M.           |          | 2             | 2                     | ...                             | 2       | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Boots and shoes...                        | 17                    | 17    | ...                 | 11 42    | F.           |          | 51            | 49                    | 2                               | 37      | 14       | 25        | 21      | 14               | 13             | 12                  | 1                    | 51           | ...                | ...           | ...               | ...                   | ...                       | ...          | 51             | ...                        |
| Carpet cleaning...                        | 2                     | 2     | ...                 | 10       | F.           |          | 3             | 3                     | ...                             | 3       | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | 3            | ...                | ...           | ...               | ...                   | ...                       | ...          | 3              | ...                        |
| Carriage and wagon dealers...             | 2                     | 2     | ...                 | 10       | M.           |          | 6             | 6                     | ...                             | 6       | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | 6            | ...                | ...           | ...               | ...                   | ...                       | ...          | 6              | ...                        |
| City laborers and water works employes... | 2                     | 2     | ...                 | 10 14    | M.           |          | 6             | 6                     | ...                             | 3       | 3        | ...       | ...     | ...              | ...            | ...                 | ...                  | 6            | ...                | ...           | ...               | ...                   | ...                       | ...          | 6              | ...                        |
| Cigars and tobacco...                     | 5                     | 5     | ...                 | 11 20    | F.           |          | 11            | 10                    | 1                               | ...     | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | 25           | ...                | 9             | ...               | ...                   | ...                       | ...          | 34             | ...                        |
| Clothing stores...                        | 14                    | 14    | ...                 | 11 12    | F.           |          | 24            | 24                    | ...                             | 14      | 7        | 4         | 11      | 1                | 2              | 16                  | 5                    | 24           | ...                | ...           | ...               | ...                   | ...                       | ...          | 24             | ...                        |
| Coal and wood yards...                    | 5                     | 5     | ...                 | 10       | M.           |          | 48            | 48                    | ...                             | 13      | 35       | 32        | 16      | 10               | 21             | 14                  | 3                    | 48           | ...                | ...           | ...               | ...                   | ...                       | ...          | 48             | ...                        |
| Commission stores...                      | 8                     | 8     | ...                 | 10 57    | F.           |          | 2             | 1                     | 1                               | 2       | ...      | ...       | ...     | ...              | ...            | ...                 | ...                  | 2            | ...                | ...           | ...               | ...                   | ...                       | ...          | 2              | ...                        |
|   |                       |       |                     |          |              |          | 25            | 25                    | ...                             | 24      | 1        | 13        | 8       | 3                | 13             | 9                   | ...                  | 24           | ...                | 1             | ...               | ...                   | ...                       | ...          | 25             | ...                        |

|   |    |    |     |       |                      |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |
|---|----|----|-----|-------|----------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| Contractors, carpenters and builders...   | 8  | 7  | ... | 9 59  | { F. 319<br>M. 319 } | 1  | 319 | 54  | 108 | 177 | 128 | 1   | 63  | 88  | 156 | 1   | 176 | 143 | 1   | ... | ... | ... | 1  | 319 |
| Grocery, glass and stoneware dealers...   | 3  | 2  | ... | 10    | { F. 31<br>M. 31 }   | 8  | 31  | 7   | 1   | 17  | 8   | 14  | 5   | 11  | 7   | 4   | 31  | 4   | ... | ... | ... | 2   | 8  |     |
| Dairies                                   | 2  | 2  | ... | 14    | { F. 1<br>M. 1 }     | 1  | 1   | 1   | 1   | ... | 1   | 1   | ... | ... | 1   | 1   | 1   | 1   | ... | ... | ... | 6   | 31 |     |
| Draying                                   | 1  | 1  | ... | 10    | M.                   | 4  | 4   | 4   | 4   | 2   | 2   | 2   | 1   | 1   | 2   | 4   | 4   | ... | ... | ... | ... | 4   | 4  |     |
| Drugs                                     | 23 | 23 | ... | 12 11 | { F. 72<br>M. 72 }   | 3  | 72  | 2   | 47  | 16  | 19  | 37  | 19  | 6   | 32  | 15  | 3   | 60  | 12  | ... | ... | 3   | 72 |     |
| Dyers                                     | 2  | 2  | ... | 10    | { F. 4<br>M. 4 }     | 4  | 4   | 1   | 3   | 7   | 4   | 2   | 3   | 4   | 4   | 2   | 4   | 4   | ... | ... | ... | ... | 4  |     |
| Dry-goods                                 | 11 | 11 | ... | 10 10 | { F. 59<br>M. 117 }  | 59 | 54  | 52  | 7   | 7   | 50  | 54  | 13  | 23  | 15  | 37  | 59  | 50  | ... | ... | ... | ... | 59 |     |
| Electric light compan's                   | 1  | 1  | ... | 10    | M.                   | 12 | 12  | 12  | 12  | 12  | ... | ... | ... | 12  | ... | ... | 12  | ... | ... | ... | ... | 12  | 12 |     |
| Engraving companies                       | 1  | 1  | ... | 9     | M.                   | 3  | 3   | 3   | ... | ... | 1   | 2   | 1   | ... | 1   | 1   | 3   | ... | ... | ... | ... | 3   | 3  |     |
| Express companies                         | 2  | 2  | ... | ...   | M.                   | 43 | 43  | 39  | 3   | 24  | 19  | 7   | 13  | 23  | ... | ... | ... | ... | 43  | ... | ... | ... | 43 |     |
| Fire department                           | 1  | 1  | ... | 12    | M.                   | 28 | 28  | 20  | 8   | 18  | 10  | 2   | 16  | 6   | ... | ... | ... | ... | 28  | ... | ... | ... | 28 |     |
| Florist                                   | 1  | 1  | ... | 10    | M.                   | 1  | 1   | 1   | 1   | ... | 1   | 1   | ... | ... | ... | 1   | 1   | 1   | ... | ... | ... | 1   | 1  |     |
| Flour, feed and grain dealers             | 11 | 11 | ... | 10 25 | { F. 23<br>M. 23 }   | 1  | 23  | 17  | 6   | 12  | 7   | 6   | 9   | ... | 7   | 1   | 22  | 1   | ... | ... | ... | 1   | 23 |     |
| Fruits, confectionery and canned goods... | 5  | 5  | ... | 11 20 | { F. 5<br>M. 7 }     | 5  | 5   | 5   | 4   | 3   | 5   | 6   | ... | 1   | 6   | ... | 3   | 7   | ... | ... | ... | ... | 5  |     |
| Furniture stores                          | 13 | 12 | ... | 11 3  | { F. 41<br>M. 41 }   | 1  | 41  | 1   | 34  | 7   | 8   | 13  | 3   | 14  | 17  | 6   | 35  | 6   | 1   | ... | ... | 1   | 41 |     |
| General stores                            | 1  | 1  | ... | 14    | M.                   | 1  | 1   | 1   | 1   | 1   | 1   | 1   | ... | 1   | ... | 1   | 1   | 1   | ... | ... | ... | 1   | 1  |     |
| Grain elevators                           | 1  | 1  | ... | 10    | M.                   | 3  | 3   | 1   | 2   | 2   | 1   | 2   | ... | ... | 1   | ... | 3   | ... | ... | ... | ... | 3   | 3  |     |
| Gun shops                                 | 2  | 2  | ... | 10    | M.                   | 3  | 3   | 3   | 3   | ... | 3   | ... | ... | ... | 2   | 1   | 3   | ... | ... | ... | ... | 3   | 3  |     |
| Groceries                                 | 69 | 66 | ... | 11 13 | { F. 203<br>M. 203 } | 8  | 203 | 5   | 139 | 47  | 72  | 86  | 34  | 54  | 79  | 28  | 7   | 180 | 1   | ... | ... | ... | 8  |     |
| Hack and 'bus line                        | 1  | 1  | ... | 16    | M.                   | 32 | 32  | ... | ... | 9   | 23  | ... | 9   | ... | ... | ... | 32  | ... | ... | ... | ... | ... | 32 |     |
| Harness                                   | 10 | 10 | ... | 10    | M.                   | 26 | 26  | 14  | 12  | 16  | 10  | 8   | 8   | ... | 8   | 2   | 26  | ... | ... | ... | ... | 26  | 26 |     |
| Hardware, stoves and tinware              | 21 | 21 | ... | 10 19 | { F. 116<br>M. 116 } | 4  | 116 | 3   | 71  | 40  | 64  | 37  | 39  | 35  | 30  | 12  | 4   | 116 | ... | ... | ... | 1   | 4  |     |



TABLE NO. 88.—Continued.

| Class of Business.                                 | Number in each class. |                       |                                 | Sanitary Condition. |       | Hrs per Day. |        | Sex. | Number of Employees. |               |                       | Nativity.                       |         | Civil Condition. |          | Employees |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
|--|-----------------------|-----------------------|---------------------------------|---------------------|-------|--------------|--------|------|----------------------|---------------|-----------------------|---------------------------------|---------|------------------|----------|-----------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|----|
|  | Total Number.         | Over 16 years of age. | Sixteen years of age and under. | Good.               | Fair. | Poor.        | Hours. |      | Minutes.             | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.         | Married. | Single.   | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |    |
|  |                       |                       |                                 |                     |       |              |        |      |                      |               |                       |                                 |         |                  |          |           |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
| GRAND RAPIDS—Cont.:                                |                       |                       |                                 |                     |       |              |        |      |                      |               |                       |                                 |         |                  |          |           |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
| Hats, caps and gents furnishing goods.....         | 7                     | 7                     | 11                              | 7                   | 7     | 7            | 12     | 6    | M.                   | 11            | 11                    | 11                              | 9       | 2                | 4        | 7         | 1             | 4              | 6         | 6                    | 11           | 11                 | 8             | 114               | 1                     | 1                         | 1            | 11             | 11                         |    |
| Hotels, boarding-houses { and restaurants..... }   | 21                    | 21                    | 197                             | 21                  | 21    | 21           | 10     | 36   | { F. }<br>{ M. }     | 197           | 194                   | 3                               | 127     | 50               | 8        | 181       | 4             | 14             | 102       | 1                    | 75           | 39                 | 4             | 65                | 1                     | 1                         | 197          | 197            | 108                        |    |
| Insurance, real estate, { and other offices..... } | 3                     | 3                     | 4                               | 3                   | 3     | 3            | 11     | 12   | { F. }<br>{ M. }     | 4             | 4                     | 1                               | 2       | 1                | 1        | 1         | 1             | 2              | 2         | 1                    | 1            | 3                  | 1             | 1                 | 1                     | 1                         | 1            | 4              | 4                          |    |
| Junk and rag store.....                            | 1                     | 1                     | 3                               | 1                   | 1     | 1            | 10     | ...  | M.                   | 3             | 3                     | 3                               | ...     | 3                | 3        | 3         | ...           | 3              | 3         | 3                    | 3            | 3                  | ...           | ...               | ...                   | 3                         | 3            | 3              |                            |    |
| Jewelry store.....                                 | 7                     | 7                     | 1                               | 7                   | 7     | 7            | 11     | 46   | { F. }<br>{ M. }     | 1             | 1                     | 1                               | 1       | ...              | 5        | 10        | 1             | 4              | 8         | 1                    | 15           | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 15             | 15                         |    |
| Laundries.....                                     | 6                     | 6                     | 65                              | 6                   | 6     | 6            | 10     | 21   | { F. }<br>{ M. }     | 23            | 63                    | 2                               | 37      | 27               | 6        | 59        | 1             | 6              | 58        | 1                    | 65           | 23                 | 65            | 23                | 65                    | 65                        | 65           | 65             | 65                         | 65 |
| Leather and findings...                            | 1                     | 1                     | 11                              | 1                   | 1     | 1            | 10     | ...  | { F. }<br>{ M. }     | 11            | 11                    | 11                              | 9       | 2                | 9        | 2         | 6             | 3              | 2         | 1                    | ...          | ...                | ...           | 11                | 1                     | 1                         | 1            | 11             | 1                          |    |
| Lime and hair dealers...                           | 3                     | 3                     | 2                               | 3                   | 3     | 3            | 10     | ...  | { F. }<br>{ M. }     | 2             | 2                     | 2                               | 2       | 3                | 1        | 1         | 2             | 1              | 1         | 1                    | 4            | 4                  | 2             | 2                 | 1                     | 1                         | 4            | 4              | 4                          |    |
| Livery stables.....                                | 16                    | 16                    | 55                              | 16                  | 16    | 16           | 11     | 54   | M.                   | 55            | 54                    | 1                               | 47      | 8                | 21       | 34        | 3             | 9              | 42        | 33                   | 33           | 92                 | 92            | 33                | 33                    | 55                        | 55           | 55             | 55                         |    |
| Lumber yards.....                                  | 2                     | 2                     | 9                               | 2                   | 2     | 2            | 10     | ...  | M.                   | 9             | 9                     | 9                               | ...     | 9                | 5        | 4         | 5             | 1              | 3         | 1                    | 9            | 9                  | 9             | 9                 | 9                     | 9                         | 9            | 9              | 9                          |    |
| Meat markets.....                                  | 34                    | 34                    | 66                              | 34                  | 34    | 34           | 13     | 53   | { F. }<br>{ M. }     | 1             | 66                    | 63                              | 3       | 32               | 21       | 2         | 11            | 16             | 32        | 1                    | 65           | 1                  | 1             | 1                 | 1                     | 1                         | 65           | 65             | 65                         |    |
| Millinery stores.....                              | 10                    | 10                    | 52                              | 10                  | 10    | 10           | 12     | 12   | { F. }<br>{ M. }     | 52            | 51                    | 1                               | 39      | 6                | 2        | 25        | 1             | 2              | 22        | 27                   | 46           | 46                 | 46            | 46                | 46                    | 46                        | 46           | 46             | 46                         |    |
| Musical instruments...                             | 3                     | 3                     | 1                               | 3                   | 3     | 3            | 11     | 20   | { F. }<br>{ M. }     | 1             | 1                     | 1                               | 18      | 5                | 15       | 8         | 3             | 10             | 10        | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |    |
| Notions and fancy goods                            | 8                     | 8                     | 35                              | 8                   | 8     | 8            | 12     | 53   | { F. }<br>{ M. }     | 13            | 35                    | 29                              | 6       | 25               | 6        | 26        | 1             | 1              | 11        | 23                   | 35           | 35                 | 8             | 8                 | 35                    | 35                        | 35           | 35             | 35                         |    |

|   |    |   |       |              |    |     |    |     |    |     |     |     |     |     |    |     |    |    |     |
|---|----|---|-------|--------------|----|-----|----|-----|----|-----|-----|-----|-----|-----|----|-----|----|----|-----|
| Oil dealers.....                            | 8  | 3 | 10    | M.           | 11 | 11  | 8  | 3   | 6  | 5   | 2   | 4   | 4   | 11  | 11 | 11  | 11 | 11 | 11  |
| Paints and oils.....                        | 3  | 3 | 10 20 | M.           | 27 | 26  | 1  | 22  | 5  | 19  | 8   | 4   | 12  | 10  | 1  | 27  | 27 | 27 | 27  |
| Painting, paper hanging and decorating..... | 2  | 2 | 10    | M.           | 14 | 14  | 14 | 14  | 4  | 10  | 2   | 1   | 11  | 11  | 14 | 14  | 14 | 14 | 14  |
| Paper dealers.....                          | 1  | 1 | 10    | M.           | 11 | 11  | 10 | 1   | 7  | 4   | 6   | 3   | 2   | 11  | 11 | 11  | 11 | 11 | 11  |
| Photographing.....                          | 6  | 6 | 10    | { F. }<br>M. | 6  | 6   | 5  | 1   | 3  | 6   | 2   | 4   | 2   | 4   | 6  | 6   | 6  | 6  | 6   |
| Picture and picture frame dealers.....      | 1  | 1 | 10    | M.           | 2  | 2   | 2  | 2   | 2  | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2  | 2  | 2   |
| Plumbing and gas fitting.....               | 3  | 3 | 10    | M.           | 69 | 67  | 2  | 44  | 25 | 33  | 36  | 8   | 26  | 30  | 5  | 69  | 7  | 4  | 69  |
| Pork and meat packing.....                  | 1  | 1 | 10    | M.           | 10 | 10  | 10 | 5   | 5  | 8   | 2   | 3   | 4   | 3   | 10 | 10  | 10 | 10 | 10  |
| Printing and publishing houses.....         | 15 | 9 | 10    | { F. }<br>M. | 8  | 130 | 12 | 113 | 14 | 41  | 76  | 17  | 47  | 50  | 28 | 135 | 1  | 1  | 142 |
| Railroading.....                            | 8  | 8 | 9 41  | { F. }<br>M. | 1  | 558 | 1  | 374 | 83 | 314 | 103 | 162 | 162 | 122 | 58 | 558 | 19 | 6  | 559 |
| Roofing dealers.....                        | 2  | 2 | 10    | M.           | 21 | 21  | 12 | 9   | 11 | 10  | 3   | 8   | 9   | 1   | 21 | 21  | 21 | 21 | 21  |
| Rubber goods.....                           | 1  | 1 | 10    | M.           | 8  | 8   | 3  | 5   | 4  | 4   | 1   | 3   | 4   | 4   | 8  | 8   | 8  | 8  | 8   |
| Safes and locks.....                        | 1  | 1 | 10    | M.           | 2  | 2   | 2  | 1   | 1  | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2  | 2  | 2   |
| Seeds.....                                  | 1  | 1 | 10    | { F. }<br>M. | 11 | 11  | 11 | 11  | 1  | 2   | 11  | 2   | 2   | 2   | 11 | 11  | 11 | 11 | 11  |
| Sewing machines.....                        | 2  | 2 | 11 46 | { F. }<br>M. | 2  | 2   | 2  | 2   | 1  | 1   | 1   | 1   | 2   | 2   | 2  | 2   | 2  | 2  | 2   |
| Sporting goods.....                         | 1  | 1 | 10    | M.           | 2  | 2   | 2  | 2   | 4  | 3   | 1   | 2   | 2   | 4   | 6  | 6   | 1  | 1  | 2   |
| Stencils and stamps.....                    | 1  | 1 | 10    | M.           | 2  | 2   | 2  | 2   | 2  | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2  | 2  | 2   |
| Street railway companies.....               | 1  | 1 | 10    | { F. }<br>M. | 1  | 66  | 1  | 1   | 12 | 28  | 38  | 1   | 1   | 1   | 1  | 66  | 3  | 3  | 66  |
| Subscription agencies.....                  | 1  | 1 | 8     | { F. }<br>M. | 3  | 30  | 30 | 24  | 6  | 6   | 30  | 30  | 30  | 30  | 30 | 30  | 30 | 30 | 30  |
| Tailoring.....                              | 5  | 5 | 10    | { F. }<br>M. | 7  | 7   | 7  | 5   | 2  | 1   | 5   | 1   | 2   | 3   | 1  | 7   | 7  | 7  | 7   |
| Tea, coffee and spice dealers.....          | 6  | 6 | 11 10 | M.           | 17 | 16  | 1  | 13  | 4  | 7   | 10  | 7   | 9   | 1   | 17 | 17  | 17 | 17 | 17  |
| Telegraphing.....                           | 1  | 1 | 9     | { F. }<br>M. | 2  | 13  | 13 | 1   | 1  | 1   | 1   | 1   | 3   | 8   | 1  | 13  | 2  | 2  | 13  |
| Telegraph messenger service.....            | 1  | 1 | 10    | M.           | 12 | 5   | 7  | 11  | 1  | 2   | 10  | 2   | 2   | 10  | 10 | 12  | 12 | 12 | 12  |

TABLE NO. 83.—Continued.

| Class of Business.                        | Number in each Class. |       | Sanitary Condition. |        | Hrs per Condition, Day. |               | Sex.      | Number of Employees.    |                                 |           | Nativity. |          | Civil Condition. |               | Employees      |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|---------------------|--------|-------------------------|---------------|-----------|-------------------------|---------------------------------|-----------|-----------|----------|------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Good.                 | Fair. | Poor.               | Hours. | Minutes.                | Total Number. |           | (Over 16 years of age.) | Sixteen years of age and under. | Native.   | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all cash. | Paid part in Store Orders. |
|   |                       |       |                     |        |                         |               |           |                         |                                 |           |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| GRAND RAPIDS—Con.:                        |                       |       |                     |        |                         |               |           |                         |                                 |           |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Train newsboys.....                       | 1                     | 1     | 12                  |        |                         | M.            | 19        | 15                      | 4                               | 19        |           |          |                  |               |                | 19        |                      | 19           |                    |               |                   |                       |                           |              |                |                            |
| Undertaking.....                          | 3                     | 3     | 10                  |        |                         | M.            | 7         | 7                       |                                 | 6         | 1         | 2        | 5                |               | 2              | 5         |                      | 7            |                    |               |                   |                       |                           |              |                |                            |
| Wall paper dealers.....                   | 1                     | 1     | 10                  |        |                         | M.            | 5         | 5                       |                                 | 1         | 4         | 4        | 1                | 2             | 1              | 2         |                      | 5            |                    |               |                   |                       |                           |              |                |                            |
| Wool, hides and pelts...                  | 2                     | 1     | 10                  |        |                         | M.            | 7         | 7                       |                                 | 4         | 3         | 6        | 1                | 3             | 3              | 1         |                      | 7            |                    |               |                   |                       |                           |              |                |                            |
| Total, city.....                          | 492                   | 476   | 10 50               |        |                         | F. M.         | 538 3,035 | 519 2,940               | 19 95                           | 373 1,922 | 132 768   | 38 1,428 | 429 1,180        | 8 582         | 29 869         | 375 1,127 | 123 300              | 389 1,992    | 9 149              | 129 894       |                   | 4 49                  | 5 31                      |              | 128 3,018      |                            |
| HANCOCK:                                  |                       |       |                     |        |                         |               |           |                         |                                 |           |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bakery.....                               | 1                     | 1     | 12                  |        |                         | F. M.         | 2 1       | 2 1                     |                                 | 2         |           |          | 2                |               |                | 2         |                      | 2            |                    |               |                   |                       |                           |              |                |                            |
| Banking.....                              | 1                     | 1     | 8                   |        |                         | M.            | 4         | 4                       |                                 | 3         | 1         | 3        | 1                | 2             | 1              | 1         |                      | 1            |                    | 4             |                   |                       |                           |              |                |                            |
| Barber shops.....                         | 2                     | 2     | 12                  |        |                         | M.            | 4         | 4                       |                                 | 3         | 1         |          | 4                |               |                | 4         |                      | 2            |                    | 2             |                   |                       |                           |              |                |                            |
| Blacksmiths.....                          | 2                     | 1     | 10                  |        |                         | M.            | 7         | 7                       |                                 | 2         | 5         | 4        | 3                | 4             | 4              | 3         |                      |              | 7                  |               | 1                 |                       |                           |              |                |                            |
| Books and stationery...                   | 1                     | 1     | 11                  |        |                         | M.            | 1         | 1                       |                                 | 1         |           |          | 1                |               |                | 1         |                      |              | 1                  |               |                   |                       |                           |              |                |                            |
| Boots and shoes.....                      | 2                     | 1     | 11                  |        |                         | M.            | 4         | 4                       |                                 |           |           |          | 4                |               |                | 4         |                      | 4            |                    |               |                   |                       |                           |              |                |                            |
| Contractors, carpenters and builders..... | 4                     | 4     | 10                  |        |                         | M.            | 66        | 65                      | 1                               | 25        | 41        | 28       | 40               | 2             | 27             | 34        | 3                    |              | 24                 |               | 1                 |                       |                           |              |                |                            |
| Dentists.....                             | 1                     | 1     | 12                  |        |                         | M.            | 1         | 1                       |                                 | 1         |           | 1        |                  | 1             | 1              |           |                      |              | 1                  |               |                   |                       |                           |              |                |                            |
| Dyeing.....                               | 1                     | 1     | 12                  |        |                         | M.            | 2         | 2                       |                                 | 2         |           |          | 2                |               |                |           | 2                    |              | 2                  |               |                   |                       |                           |              |                |                            |
| Drugs.....                                | 2                     | 2     | 12                  |        |                         | M.            | 3         | 3                       |                                 | 3         |           |          | 3                |               |                |           | 3                    |              | 3                  |               | 1                 |                       |                           |              |                |                            |

|   |    |    |    |          |          |     |    |     |     |    |     |    |    |     |    |    |    |     |     |    |
|---|----|----|----|----------|----------|-----|----|-----|-----|----|-----|----|----|-----|----|----|----|-----|-----|----|
| Dry-goods                                   | 1  | 1  | 1  | 1        | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Express companies                           | 1  | 1  | 1  | 1        | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Forwarding docks                            | 3  | 3  | 10 | M.       | 7        | 7   | 7  | 7   | 7   | 7  | 7   | 7  | 7  | 7   | 7  | 7  | 7  | 7   | 7   | 7  |
| General stores                              | 3  | 3  | 12 | M.       | 11       | 11  | 8  | 3   | 2   | 3  | 3   | 1  | 4  | 3   | 11 | 6  | 1  | 1   | 1   | 1  |
| Groceries                                   | 4  | 4  | 11 | 40       | M.       | 6   | 5  | 1   | 5   | 1  | 5   | 1  | 1  | 4   | 6  | 1  | 1  | 1   | 1   | 1  |
| Hardware, etc                               | 2  | 2  | 11 | M.       | 2        | 2   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 2  | 2  | 2  | 2   | 2   | 2  |
| Harness                                     | 1  | 1  | 10 | M.       | 3        | 3   | 3  | 3   | 3   | 3  | 3   | 3  | 3  | 3   | 3  | 3  | 3  | 3   | 3   | 3  |
| Hotels, board'g houses<br>and restaurants   | 2  | 2  | 10 | 18       | F.<br>M. | 10  | 9  | 1   | 3   | 7  | 10  | 10 | 10 | 10  | 10 | 10 | 10 | 10  | 10  | 10 |
| Insurance, real estate<br>and other offices | 1  | 1  | 12 | M.       | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Jewelry stores                              | 1  | 1  | 12 | M.       | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Laundries                                   | 1  | 1  | 10 | F.<br>M. | 2        | 1   | 1  | 2   | 1   | 2  | 1   | 1  | 1  | 1   | 2  | 1  | 1  | 1   | 1   | 1  |
| Livery stables                              | 2  | 2  | 12 | 30       | M.       | 8   | 8  | 6   | 2   | 2  | 6   | 2  | 5  | 1   | 8  | 2  | 2  | 2   | 2   | 2  |
| Masons                                      | 2  | 2  | 10 | M.       | 14       | 14  | 14 | 11  | 7   | 7  | 7   | 1  | 6  | 7   | 14 | 14 | 14 | 14  | 14  | 14 |
| Meat markets                                | 3  | 3  | 12 | 17       | M.       | 14  | 13 | 1   | 6   | 8  | 3   | 11 | 3  | 9   | 2  | 2  | 2  | 2   | 2   | 2  |
| Millinery stores                            | 2  | 2  | 9  | 40       | F.       | 3   | 3  | 1   | 2   | 2  | 3   | 3  | 2  | 1   | 3  | 2  | 2  | 2   | 2   | 2  |
| Painting & decorating                       | 2  | 2  | 10 | M.       | 2        | 2   | 2  | 2   | 2   | 2  | 2   | 2  | 1  | 1   | 2  | 1  | 1  | 1   | 1   | 1  |
| Photographing                               | 1  | 1  | 10 | M.       | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Printing and publishing                     | 1  | 1  | 10 | M.       | 2        | 1   | 1  | 1   | 1   | 1  | 2   | 2  | 2  | 2   | 2  | 2  | 2  | 2   | 2   | 2  |
| Railroad                                    | 1  | 1  | 10 | F.<br>M. | 1        | 33  | 2  | 17  | 18  | 1  | 25  | 10 | 20 | 5   | 1  | 1  | 1  | 1   | 1   | 1  |
| Tailoring                                   | 1  | 1  | 10 | F.<br>M. | 6        | 6   | 6  | 6   | 6   | 6  | 1   | 5  | 1  | 4   | 6  | 1  | 1  | 1   | 1   | 1  |
| Telegraphing                                | 1  | 1  | 11 | F.<br>M. | 1        | 1   | 1  | 1   | 1   | 1  | 1   | 1  | 1  | 1   | 1  | 1  | 1  | 1   | 1   | 1  |
| Total, town                                 | 53 | 51 | 2  | F.<br>M. | 25       | 23  | 2  | 16  | 9   | 3  | 22  | 1  | 2  | 15  | 7  | 2  | 6  | 17  | 25  | 2  |
|   |    |    |    |          | 216      | 209 | 7  | 109 | 107 | 79 | 130 | 34 | 51 | 103 | 28 | 13 | 9  | 152 | 172 | 2  |

TABLE NO. 33.—Continued.

| Class of Business.                              | Number in each Class. |       |        | Hours per Day |                       | Sex. | Number of Employees.            |         |          | Nativity. |         | Civil Condition. |                | Employees |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|--------|---------------|-----------------------|------|---------------------------------|---------|----------|-----------|---------|------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Sanitary Condition.   |       |        | Total Number. | Over 16 years of age. |      | Sixteen years of age and under. | Native. | Foreign. | Married.  | Single. | Owning Homes.    | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|   | Good.                 | Fair. | Poor.  |               |                       |      |                                 |         |          |           |         |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| HANOVER:  |                       |       |        |               |                       |      |                                 |         |          |           |         |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Boots and shoes.....                            | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Drugs.....                                      | 1                     | 1     | 12     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Furniture stores.....                           | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| General stores.....                             | 4                     | 4     | 12-24  | 1             | 1                     | 1    | 4                               | 4       | 1        | 3         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 2             | 1                 | 2                     | 2                         | 2            | 1              | 4                          |
| Hotels, boarding houses<br>and restaurants..... | 1                     | 1     | 12     | 1             | 1                     | 2    | 1                               | 2       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Lumber yards.....                               | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Machinery dealers.....                          | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Meat markets.....                               | 1                     | 1     | 12     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Total, town.....                                | 11                    | 10    | 111 41 | 3 11          | 3 11                  | 3 10 | 3 10                            | 1 1     | 1 4      | 1 2       | 1 2     | 1 1              | 1 2            | 1 4       | 1 2                  | 1 1          | 1 2                | 1 5           | 1 5               | 1 4                   | 1 4                       | 1 4          | 1 4            | 1 4                        |
| HARBOR SPRINGS:                                 |                       |       |        |               |                       |      |                                 |         |          |           |         |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Barber shops and bath<br>rooms.....             | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Blacksmithing and<br>horseshoeing.....          | 1                     | 1     | 10     | 2             | 2                     | 2    | 2                               | 2       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 2            | 2                  | 2             | 2                 | 1                     | 1                         | 1            | 2              | 2                          |
| Boots and shoes.....                            | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| Contractors, carpenters<br>and builders.....    | 1                     | 1     | 10     | 7             | 7                     | 7    | 7                               | 7       | 7        | 7         | 7       | 2                | 5              | 5         | 5                    | 7            | 7                  | 7             | 7                 | 7                     | 7                         | 7            | 7              | 7                          |
| Dry goods.....                                  | 1                     | 1     | 10     | 1             | 1                     | 1    | 1                               | 1       | 1        | 1         | 1       | 1                | 1              | 1         | 1                    | 1            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 1                          |
| General stores.....                             | 1                     | 1     | 10     | 1             | 1                     | 1    | 2                               | 2       | 1        | 2         | 1       | 1                | 1              | 1         | 1                    | 2            | 2                  | 2             | 2                 | 1                     | 1                         | 1            | 2              | 2                          |

|  |    |    |                  |    |    |    |    |   |    |    |   |   |    |   |    |    |
|--|----|----|------------------|----|----|----|----|---|----|----|---|---|----|---|----|----|
| Groceries.....                               | 3  | 3  | M.               | 9  | 7  | 2  | 9  | 5 | 4  | 5  | 1 | 2 | 1  | 9 | 1  | 9  |
| Hardware, stoves and tinware.....            | 1  | 1  | M.               | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Hotels, boarding-houses and restaurants..... | 2  | 2  | { F. }<br>{ M. } | 6  | 5  | 1  | 6  | 3 | 1  | 3  | 3 | 1 | 1  | 6 | 1  | 6  |
| Livery stables.....                          | 1  | 1  | M.               | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Meat markets.....                            | 1  | 1  | M.               | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Printing and publishing.....                 | 1  | 1  | { F. }<br>{ M. } | 1  | 1  | 2  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 2 | 1  | 2  |
| Total, town.....                             | 15 | 15 | { F. }<br>{ M. } | 8  | 7  | 1  | 8  | 1 | 3  | 1  | 7 | 3 | 4  | 8 | 2  | 8  |
| HILLSDALE:                                   |    |    |                  |    |    |    |    |   |    |    |   |   |    |   |    |    |
| Agricultural implements.....                 | 1  | 1  | M.               | 2  | 2  | 2  | 2  | 1 | 1  | 1  | 1 | 1 | 1  | 2 | 1  | 2  |
| Bakeries.....                                | 2  | 1  | { F. }<br>{ M. } | 1  | 1  | 2  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Bankers and brokers.....                     | 4  | 4  | M.               | 7  | 7  | 7  | 6  | 1 | 4  | 3  | 4 | 3 | 1  | 1 | 5  | 7  |
| Barber shops and bath rooms.....             | 2  | 1  | M.               | 3  | 3  | 3  | 3  | 2 | 1  | 1  | 2 | 1 | 1  | 3 | 1  | 3  |
| Books and stationery.....                    | 1  | 1  | M.               | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Boots and shoes.....                         | 4  | 4  | { F. }<br>{ M. } | 11 | 11 | 1  | 10 | 1 | 9  | 2  | 3 | 6 | 1  | 1 | 2  | 11 |
| Building stone and monument dealers.....     | 1  | 1  | M.               | 3  | 3  | 3  | 2  | 1 | 3  | 1  | 2 | 1 | 1  | 3 | 1  | 3  |
| Clothing.....                                | 4  | 3  | { F. }<br>{ M. } | 8  | 8  | 5  | 6  | 1 | 5  | 3  | 4 | 1 | 1  | 8 | 1  | 8  |
| Coal and wood yards.....                     | 2  | 2  | M.               | 5  | 5  | 5  | 5  | 1 | 4  | 1  | 2 | 2 | 1  | 5 | 1  | 5  |
| Contractors, carpenters and builders.....    | 3  | 3  | M.               | 30 | 28 | 2  | 28 | 2 | 19 | 11 | 4 | 6 | 19 | 1 | 30 | 30 |
| Crockery, glass and stoneware dealers.....   | 1  | 1  | M.               | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Drugs.....                                   | 4  | 4  | { F. }<br>{ M. } | 1  | 1  | 1  | 1  | 1 | 1  | 1  | 1 | 1 | 1  | 1 | 1  | 1  |
| Dry goods.....                               | 5  | 5  | { F. }<br>{ M. } | 8  | 8  | 10 | 8  | 1 | 7  | 1  | 1 | 3 | 5  | 6 | 1  | 8  |
| Furniture and undertaking.....               | 2  | 2  | M.               | 4  | 4  | 4  | 4  | 4 | 4  | 4  | 4 | 4 | 4  | 4 | 4  | 4  |

TABLE No. 83.—Continued.

| Class of Business. | Number in each Class. |       |       | Sanitary Condition. |          | Hrs per Day. | Sex. | Number of Employes. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employees |                |           |                      |              |                    |               |                   |                       |                           | Paid part in Store Orders. |              |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|-----------------------|-------|-------|---------------------|----------|--------------|------|---------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------------------|--------------|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                    | Good.                 | Fair. | Poor. | Hours.              | Minutes. |              |      | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. |                            | Apprentices. | Paid all Cash. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |                       |       |       |                     |          |              |      |                     |                       |                                 |           |          |                  |         |                     |                |           |                      |              |                    |               |                   |                       |                           |                            |              |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HILLSDALE—Cont'd:  |                       |       |       |                     |          |              |      |                     |                       |                                 |           |          |                  |         |                     |                |           |                      |              |                    |               |                   |                       |                           |                            |              |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]





| HOWELL:                                      |    |    |     |                     |    |     |    |    |    |    |    |    |    |     |
|--|----|----|-----|---------------------|----|-----|----|----|----|----|----|----|----|-----|
| Agr'l implements.....                        | 1  | 1  | 15  | M.                  | 3  | 3   | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3   |
| Bankers and brokers.....                     | 2  | 2  |     | M.                  | 5  | 5   | 4  | 1  | 4  | 1  | 4  | 1  | 2  | 5   |
| Boots and shoes.....                         | 1  | 1  | 12  | M.                  | 1  | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Building stone and monument dealers.....     | 1  | 1  | 10  | M.                  | 3  | 3   | 3  | 3  | 1  | 2  | 1  | 2  | 3  | 3   |
| Coal and wood yards.....                     | 1  | 1  | 10  | M.                  | 3  | 3   | 3  | 2  | 1  | 1  | 1  | 1  | 3  | 3   |
| Contractors, carpenters and builders.....    | 1  | 1  | 10  | M.                  | 6  | 6   | 1  | 5  | 1  | 2  | 3  | 1  | 6  | 6   |
| Clothing stores.....                         | 1  | 1  | 14  | M.                  | 2  | 2   | 1  | 1  | 2  | 2  | 2  | 2  | 2  | 2   |
| Drugs.....                                   | 3  | 3  | 13  | M.                  | 3  | 3   | 2  | 1  | 2  | 2  | 1  | 1  | 3  | 3   |
| Grain elevator.....                          | 1  | 1  | 10  | M.                  | 1  | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| General stores.....                          | 5  | 4  | 12  | { F. 3<br>M. 22 }   | 3  | 3   | 3  | 2  | 10 | 5  | 5  | 1  | 2  | 3   |
| Groceries.....                               | 7  | 7  | 13  | M.                  | 17 | 16  | 1  | 17 | 5  | 10 | 4  | 3  | 6  | 15  |
| Hardware, stoves and tinware.....            | 2  | 2  | 11  | { F. 2<br>M. 10 }   | 2  | 2   | 1  | 2  | 1  | 3  | 4  | 1  | 2  | 2   |
| Harness.....                                 | 2  | 2  | 10  | M.                  | 2  | 2   | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 2   |
| Hotels, boarding houses and restaurants..... | 2  | 2  | 12  | { F. 8<br>M. 5 }    | 5  | 8   | 3  | 1  | 7  | 1  | 1  | 6  | 3  | 8   |
| Lumber yards.....                            | 1  | 1  | 10  | M.                  | 2  | 2   | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 2   |
| Millinery stores.....                        | 3  | 3  | 10  | { F. 9<br>M. 1 }    | 9  | 7   | 2  | 6  | 2  | 4  | 2  | 4  | 3  | 7   |
| News depot.....                              | 1  | 1  | 14  | F.                  | 1  | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Printing and publishing.....                 | 1  | 1  | 10  | { F. 1<br>M. 2 }    | 1  | 1   | 1  | 1  | 1  | 2  | 1  | 1  | 1  | 1   |
| Tailoring.....                               | 1  | 1  | 12  | { F. 25<br>M. 20 }  | 12 | 25  | 13 | 20 | 5  | 12 | 11 | 2  | 35 | 25  |
| Woolens.....                                 | 1  | 1  | 10  | F.                  | 3  | 3   | 2  | 1  | 3  | 7  | 8  | 2  | 20 | 20  |
| Total, town.....                             | 38 | 36 | 115 | { F. 52<br>M. 108 } | 31 | 50  | 2  | 72 | 24 | 4  | 14 | 23 | 11 | 50  |
|  |    |    |     |                     |    | 104 | 4  |    | 48 | 27 | 27 | 36 | 18 | 106 |

TABLE NO. 88.—Continued.

| Class of Business.                             | Sanitary Condition.   |       | Hrs per Day. | Sex.        | Number of Employés. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |                           | Paid part in Store Orders. |              |                |        |          |
|--|-----------------------|-------|--------------|-------------|---------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------------------|--------------|----------------|--------|----------|
|  | Number in each Class. |       |              |             | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. |                            | Apprentices. | Paid all Cash. |        |          |
|  | Good.                 | Fair. | Poor.        |             |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |                            |              |                | Hours. | Minutes. |
| JACKSON :                                      |                       |       |              |             |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |                            |              |                |        |          |
| Agricultural imple-<br>ments.....              | 9                     | 6     | 10 20        | F. 25<br>M. | 1<br>22             | 3                     | 15                              | 10        | 1        | 11               | 5       | 5                  | 4              | 15        | 1                    | 4            | 10                 |               | 4                 |                       | 1                         | 25                         | 1            |                |        |          |
| Art stores.....                                | 1                     | 1     | 10           | M.          | 1                   |                       | 1                               |           | 1        |                  |         |                    |                |           |                      |              |                    |               |                   |                       | 1                         |                            |              |                |        |          |
| Bakeries.....                                  | 2                     | 2     | 8 35         | F. 13<br>M. | 1<br>11             | 2                     | 9                               | 4         | 1        | 3                | 5       | 3                  | 2              | 13        | 1                    | 1            |                    |               | 5                 |                       | 1                         | 13                         | 1            |                |        |          |
| Bankers and brokers.....                       | 4                     | 4     | 10           | M.          | 14                  | 14                    | 9                               | 5         | 8        | 1                | 4       | 1                  | 4              | 10        | 1                    | 10           | 4                  |               | 10                | 1                     | 14                        |                            |              |                |        |          |
| Barber shops and bath<br>rooms.....            | 8                     | 8     | 13 17        | M.          | 27                  | 27                    | 12                              | 15        | 2        | 10               | 12      | 3                  | 27             | 3         | 27                   |              |                    |               | 3                 |                       | 27                        |                            |              |                |        |          |
| Bill posters.....                              | 1                     | 1     | 7            | M.          | 3                   | 3                     |                                 | 3         |          |                  |         |                    |                | 3         | 3                    |              |                    |               |                   |                       | 3                         |                            |              |                |        |          |
| Blacksmithing and<br>horseshoeing.....         | 10                    | 10    | 10           | M.          | 17                  | 17                    | 5                               | 6         | 5        | 3                | 6       | 3                  | 17             | 1         | 17                   |              |                    |               | 1                 |                       | 17                        |                            |              |                |        |          |
| Books and stationery..                         | 3                     | 3     | 11 8         | F. 3<br>M.  | 3<br>4              | 3                     | 2                               | 1         |          | 2                |         | 1                  | 2              | 3         | 3                    |              |                    | 1             | 2                 | 3                     | 3                         | 1                          | 1            | 1              | 4      |          |
| Boots and shoes.....                           | 10                    | 9     | 12 23        | F. 26<br>M. | 2<br>25             | 1                     | 15                              | 11        | 8        | 6                | 4       | 8                  | 26             | 1         | 2                    |              |                    | 1             | 1                 | 10                    | 24                        | 1                          |              |                |        |          |
| Bottling works.....                            | 3                     | 3     | 10 32        | F. 1<br>M.  | 1<br>12             | 2                     | 1                               | 9         |          | 1                | 8       | 3                  | 9              | 1         | 1                    | 3            |                    |               | 3                 |                       | 12                        |                            |              |                |        |          |
| Brush dealers.....                             | 1                     | 1     | 10           | M.          | 1                   | 1                     |                                 | 1         |          |                  |         |                    |                | 1         | 1                    |              |                    | 1             | 1                 | 1                     |                           |                            |              |                |        |          |
| Building stone and<br>monument dealers.....    | 2                     | 1     | 10           | M.          | 14                  | 14                    | 8                               | 6         | 2        | 5                | 7       |                    |                | 10        | 4                    |              |                    |               |                   | 14                    |                           |                            |              |                |        |          |
| Carpet dealers.....                            | 2                     | 2     | 10           | M.          | 2                   | 2                     |                                 | 2         |          | 2                |         |                    |                | 2         |                      |              |                    |               | 2                 |                       | 2                         |                            |              |                |        |          |
| Cigars and tobacco.....                        | 5                     | 5     | 11 32        | M.          | 10                  | 10                    | 5                               | 5         | 4        | 1                | 4       | 1                  | 9              | 1         | 9                    |              |                    |               | 2                 |                       | 6                         |                            |              |                |        |          |
| City laborers and water<br>works employés..... | 3                     | 3     | 10           | M.          | 182                 | 180                   | 151                             | 31        | 61       | 85               | 26      | 10                 | 132            | 50        | 132                  | 50           |                    |               | 8                 | 1                     | 182                       |                            |              |                |        |          |
| Clothing.....                                  | 8                     | 8     | 12 7         | F. 6<br>M.  | 6<br>25             | 6                     | 2                               | 4         | 5        | 8                | 8       | 4                  | 4              | 5         | 4                    | 25           |                    |               | 4                 |                       | 6                         |                            |              |                |        |          |

[illegible]

TABLE No. 83.—Continued.

| Class of Business.                     | Number in each Class. | Sanitary Condition. |       |       | Hrs per Day. | Sex.    | Number of Employés. |                       |                                 | Nativity. |          | Civil Condition. |         | Number of Employés |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|---------------------|-------|-------|--------------|---------|---------------------|-----------------------|---------------------------------|-----------|----------|------------------|---------|--------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  |                       | Good.               | Fair. | Poor. |              |         | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married.         | Single. | Owning Homes.      | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  |                       |                     |       |       |              |         |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| JACKSON—Continued:                     |                       |                     |       |       |              |         |                     |                       |                                 |           |          |                  |         |                    |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Livery stables                         | 3                     | 3                   | ...   | 13    | M.           | 6       | 6                   | ...                   | ...                             | 3         | 3        | 3                | 3       | ...                | 3              | 3         | ...                  | ...          | 6                  | ...           | ...               | 4                     | ...                       | ...          | ...            | ...                        |
| Lumber yards                           | 2                     | 2                   | ...   | 10    | { F.<br>M.   | 1<br>37 | 1<br>36             | 1                     | ...                             | 1         | ...      | 1                | ...     | ...                | 14             | 9         | 5                    | 1            | 1                  | 37            | ...               | 1                     | ...                       | ...          | ...            | ...                        |
| Musical instruments                    | 2                     | 2                   | ...   | 10 37 | { F.<br>M.   | 8<br>8  | 2<br>2              | ...                   | ...                             | 2         | ...      | 2                | ...     | ...                | 4              | 1         | 1                    | 1            | 1                  | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Meat markets                           | 15                    | 13                  | ...   | 10 32 | { F.<br>M.   | 4<br>37 | 4<br>36             | 1                     | ...                             | 4         | ...      | 1                | ...     | ...                | 11             | 30        | 2                    | 1            | 4                  | 36            | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Millinery                              | 5                     | 5                   | ...   | 10 9  | { F.<br>M.   | 20<br>6 | 20<br>5             | 1                     | ...                             | 17        | 3        | 2                | 18      | ...                | 6              | 4         | 16                   | 5            | 6                  | 20            | ...               | 1                     | ...                       | ...          | ...            | ...                        |
| News depots                            | 2                     | 2                   | ...   | 13 30 | { F.<br>M.   | 7<br>7  | 4<br>3              | ...                   | ...                             | 1         | ...      | ...              | 1       | ...                | ...            | 2         | 1                    | 1            | 1                  | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Notions and fancy goods                | 2                     | 2                   | ...   | 10 30 | { F.<br>M.   | 7<br>3  | 7<br>3              | ...                   | ...                             | 7         | ...      | 2                | 1       | ...                | ...            | 1         | 6                    | ...          | 1                  | 3             | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Oil dealers                            | 2                     | 2                   | ...   | 10    | M.           | 7       | 7                   | ...                   | ...                             | 7         | ...      | 3                | 4       | ...                | 1              | 3         | 1                    | 7            | ...                | ...           | 5                 | ...                   | ...                       | ...          | ...            | ...                        |
| Painting, paper-hanging and decorating | 6                     | 6                   | ...   | 10    | { F.<br>M.   | 1<br>28 | 1<br>28             | ...                   | ...                             | 1         | ...      | 1                | ...     | ...                | 7              | 16        | 5                    | 1            | 28                 | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Paper dealer                           | 1                     | 1                   | ...   | 10    | M.           | 2       | 2                   | ...                   | ...                             | 1         | 1        | 1                | 1       | ...                | 1              | 1         | ...                  | 2            | ...                | ...           | 1                 | ...                   | ...                       | ...          | ...            | ...                        |
| Paper carriers                         | 1                     | 1                   | ...   | 2     | M.           | 13      | ...                 | 13                    | ...                             | 13        | ...      | ...              | 13      | ...                | ...            | ...       | 13                   | 13           | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        |
| Photographing                          | 4                     | 4                   | ...   | 8 34  | { F.<br>M.   | 6<br>1  | 6<br>1              | ...                   | ...                             | 5         | 1        | 2                | 4       | ...                | 2              | 1         | 3                    | ...          | 6                  | ...           | 2                 | ...                   | ...                       | ...          | ...            | ...                        |
| Plasterers and masons                  | 2                     | 2                   | ...   | 10    | M.           | 33      | 33                  | ...                   | ...                             | 18        | 15       | 15               | 18      | ...                | 6              | 2         | 16                   | 9            | 33                 | ...           | 1                 | ...                   | ...                       | ...          | ...            | ...                        |
| Plumbing and gas fitting               | 2                     | 2                   | ...   | 10    | M.           | 21      | 21                  | ...                   | ...                             | 17        | 4        | 4                | 17      | ...                | 2              | 11        | 6                    | ...          | 21                 | ...           | 5                 | 3                     | ...                       | ...          | ...            | ...                        |

|   |     |     |         |              |              |              |          |            |           |           |            |           |          |            |           |              |         |          |           |         |            |         |
|---|-----|-----|---------|--------------|--------------|--------------|----------|------------|-----------|-----------|------------|-----------|----------|------------|-----------|--------------|---------|----------|-----------|---------|------------|---------|
| Printing and publishing.....                | 8   | 7   | 10      | { F.<br>M. } | 1<br>70      | 1<br>58      | 12       | 1<br>59    | 11        | 31        | 38         | 1         | 12       | 14         | 15        | 1<br>29      | 1<br>69 | 1        | 8         | 1       | 1          | 1<br>70 |
| Repair shops.....                           | 1   | 1   | 10      | M.           | 5            | 5            | 5        | 5          | 5         | 2         | 3          | 2         | 2        | 2          | 2         | 3            | 5       | 5        | 1         | 1       | 1          | 5       |
| Roofing.....                                | 1   | 1   | 10      | M.           | 3            | 3            | 3        | 3          | 3         | 3         | 3          | 1         | 2        | 1          | 2         | 3            | 3       | 3        | 1         | 1       | 1          | 3       |
| Second-hand store.....                      | 1   | 1   | 12      | M.           | 1            | 1            | 1        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 1       | 1        | 1         | 1       | 1          |         |
| Sewing machines.....                        | 2   | 1   | 10      | { F.<br>M. } | 2<br>8       | 2<br>8       | 2<br>8   | 2<br>7     | 2<br>1    | 2<br>1    | 2<br>1     | 2         | 2        | 2          | 1         | 2            | 2       | 2        | 1         | 1       | 2          |         |
| Sidewalk builders.....                      | 1   | 1   | 10      | M.           | 8            | 8            | 8        | 8          | 8         | 5         | 4          | 4         | 3        | 1          | 4         | 8            | 8       | 8        | 1         | 1       | 8          |         |
| Storage companies.....                      | 1   | 1   | 10      | M.           | 2            | 2            | 2        | 2          | 2         | 2         | 2          | 2         | 1        | 1          | 1         | 2            | 2       | 2        | 1         | 1       | 2          |         |
| Street railways.....                        | 1   | 1   | 14      | M.           | 11           | 11           | 11       | 8          | 3         | 11        | 11         | 11        | 11       | 11         | 11        | 11           | 11      | 11       | 11        | 11      | 11         |         |
| Tailoring.....                              | 3   | 3   | 11 38   | { F.<br>M. } | 11<br>13     | 11<br>13     | 11<br>13 | 2<br>4     | 4<br>3    | 10<br>5   | 10<br>4    | 2<br>4    | 2<br>4   | 2<br>4     | 2<br>4    | 2<br>11      | 13      | 11       | 1         | 3       | 11<br>13   |         |
| Telegraph companies.....                    | 1   | 1   | 10      | { F.<br>M. } | 2<br>6       | 2<br>6       | 2<br>3   | 2<br>6     | 2         | 2         | 2          | 2         | 1        | 1          | 2         | 1<br>3       | 2<br>6  | 2        | 2         | 2       | 2<br>6     |         |
| Undertaking.....                            | 1   | 1   | 10      | M.           | 1            | 1            | 1        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 1       | 1        | 1         | 1       | 1          |         |
| Total, city.....                            | 278 | 289 | 1 10 34 | { F.<br>M. } | 224<br>1,280 | 223<br>1,207 | 73       | 135<br>886 | 61<br>365 | 26<br>661 | 194<br>589 | 11<br>259 | 8<br>348 | 127<br>423 | 72<br>231 | 205<br>1,147 | 2<br>77 | 11<br>55 | 22<br>160 | 3<br>42 | 1<br>1,273 |         |
| LAKESIDE:                                   |     |     |         |              |              |              |          |            |           |           |            |           |          |            |           |              |         |          |           |         |            |         |
| City laborers and water works employes..... | 1   | 1   | 12      | M.           | 2            | 2            | 2        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 2       | 2        | 1         | 1       | 2          |         |
| Drugs.....                                  | 1   | 1   | 12      | M.           | 1            | 1            | 1        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 1       | 1        | 1         | 1       | 1          |         |
| Flour, feed and grain.....                  | 1   | 1   | 12      | M.           | 1            | 1            | 1        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 1       | 1        | 1         | 1       | 1          |         |
| Fruit, confectionery and canned goods.....  | 1   | 1   | 15      | M.           | 1            | 1            | 1        | 1          | 1         | 1         | 1          | 1         | 1        | 1          | 1         | 1            | 1       | 1        | 1         | 1       | 1          |         |
| General stores.....                         | 1   | 1   | 15      | { F.<br>M. } | 1<br>2       | 1<br>2       | 2        | 1<br>1     | 1         | 1         | 2          | 1         | 1        | 1          | 1         | 1<br>2       | 1       | 2        | 1         | 1       | 2          |         |
| Groceries.....                              | 2   | 2   | 15 45   | { F.<br>M. } | 1<br>7       | 1<br>5       | 2        | 1<br>6     | 2<br>5    | 1<br>5    | 1<br>5     | 1         | 1        | 1          | 1         | 1<br>5       | 1       | 2        | 1         | 1       | 7          |         |
| Meat markets.....                           | 1   | 1   | 15      | M.           | 4            | 4            | 4        | 3          | 1         | 3         | 1          | 1         | 1        | 2          | 1         | 1            | 4       | 4        | 1         | 1       | 1          |         |
| Total, town.....                            | 8   | 7   | 1 14 36 | { F.<br>M. } | 2<br>18      | 2<br>16      | 2        | 1<br>7     | 1<br>10   | 2<br>7    | 11<br>11   | 3<br>3    | 4<br>4   | 1<br>7     | 1<br>4    | 1<br>7       | 1<br>11 | 1<br>11  | 1<br>11   | 2<br>14 | 2<br>14    |         |

TABLE No. 83.—Continued.

| Class of Business.                           | Sanitary Condition. |       | Hr's per Day. | Number in each Class. |               |                       | Number of Employees.            |          |          | Nativity. |         | Civil Condition. |                | Number of Employéés |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|---------------------|-------|---------------|-----------------------|---------------|-----------------------|---------------------------------|----------|----------|-----------|---------|------------------|----------------|---------------------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  |                     |       |               | Sex.                  | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.  | Foreign. | Married.  | Single. | Owning Homes.    | Renting Homes. | Boarding.           | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  | Good.               | Fair. |               |                       |               |                       |                                 |          |          |           |         |                  |                |                     |                      |              |                    |               |                   |                       |                           |              |                |                            |
| LANSING :                                    |                     |       |               |                       |               |                       |                                 |          |          |           |         |                  |                |                     |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Agricultural imple-<br>ments.....            | 6                   | 6     | 11            | M.                    | 12            | 12                    |                                 | 11       | 1        | 6         | 6       | 4                | 2              | 3                   | 1                    | 12           |                    |               |                   |                       |                           |              |                | 12                         |
| Bakeries.....                                | 1                   | 1     |               | { F.<br>M.            | 3<br>2        | 3<br>2                |                                 | 2<br>1   | 1        |           | 3       |                  |                | 2                   |                      | 3            |                    |               |                   |                       |                           |              |                | 3                          |
| Bankers and brokers.....                     | 2                   | 2     | 6 48          | M.                    | 7             | 7                     |                                 | 7        |          | 4         | 3       | 2                |                | 2                   | 1                    |              |                    |               |                   |                       |                           |              |                | 2                          |
| Barber shops and bath<br>rooms.....          | 7                   | 5     | 13 42         | { F.<br>M.            | 1<br>14       | 1<br>14               |                                 | 1<br>14  |          |           | 1<br>14 | 2                | 5              | 7                   |                      | 1<br>14      |                    |               |                   |                       |                           |              |                | 1                          |
| Blacksmithing and<br>horseshoeing.....       | 6                   | 6     | 10 8          | M.                    | 9             | 9                     |                                 | 7        | 1        | 5         | 3       | 5                | 1              | 3                   |                      | 6            |                    |               |                   |                       |                           |              |                | 6                          |
| Books and stationery.....                    | 4                   | 3     | 10 24         | { F.<br>M.            | 2<br>4        | 2<br>2                |                                 | 2<br>4   |          | 1         | 3       |                  |                | 2                   | 2                    | 3            |                    |               |                   |                       |                           |              |                | 2                          |
| Boots and shoes.....                         | 8                   | 8     | 10            | M.                    | 10            | 10                    |                                 | 7        | 2        | 6         | 2       | 2                |                | 3                   | 2                    | 9            |                    |               |                   |                       |                           |              |                | 9                          |
| Building stone and<br>monuments.....         | 2                   | 2     | 10            | M.                    | 9             | 9                     |                                 | 8        | 1        |           |         | 4                | 1              | 3                   | 1                    | 9            |                    |               |                   |                       |                           |              |                | 9                          |
| Clothing.....                                | 3                   | 3     | 12            | M.                    | 6             | 6                     |                                 | 6        |          | 2         | 4       |                  | 2              | 2                   | 2                    | 6            |                    |               |                   | 2                     |                           |              |                | 6                          |
| Contractors, carpenters<br>and builders..... | 2                   | 1     | 10            | M.                    | 122           | 122                   |                                 | 81       | 41       | 90        | 22      | 8                | 4              | 4                   |                      | 122          |                    |               |                   | 3                     | 5                         |              |                | 122                        |
| Crockery, glass and<br>stoneware.....        | 1                   | 1     |               | M.                    | 1             | 1                     |                                 | 1        |          |           | 1       |                  |                |                     |                      |              |                    |               |                   |                       |                           |              |                | 1                          |
| Drugs.....                                   | 10                  | 7     | 10 51         | { F.<br>M.            | 3<br>17       | 3<br>16               |                                 | 3<br>16  | 1        | 7         | 8       | 2                | 4              | 2                   | 3                    | 11           |                    |               | 2                 | 1                     | 1                         |              |                | 3                          |
| Dry goods.....                               | 10                  | 9     | 13 30         | { F.<br>M.            | 19<br>25      | 19<br>21              |                                 | 18<br>24 | 1<br>1   | 8<br>2    | 17<br>1 | 1                | 5              | 5                   | 3                    | 11           |                    |               | 3                 | 1                     | 2                         |              |                | 14                         |
| Dyeing.....                                  | 1                   | 1     | 10            | { F.<br>M.            | 1<br>1        | 1<br>1                |                                 | 1<br>1   | 1        | 1         | 1       |                  |                | 7                   | 4                    | 17           |                    |               | 5                 | 2                     |                           |              |                | 22                         |
| Express companies.....                       | 1                   |       |               | M.                    | 1             | 1                     |                                 |          |          | 1         | 1       |                  | 1              |                     |                      | 1            |                    |               | 1                 |                       |                           |              |                | 1                          |
| Flour, feed and grain.....                   | 2                   | 2     | 12            | M.                    | 3             | 3                     |                                 | 2        |          | 1         | 1       |                  | 1              |                     |                      | 3            |                    |               | 1                 |                       |                           |              |                | 3                          |

|  |    |       |       |            |          |          |            |          |         |          |        |         |          |        |          |          |          |
|--|----|-------|-------|------------|----------|----------|------------|----------|---------|----------|--------|---------|----------|--------|----------|----------|----------|
| Furniture.....   | 3  | 3     | 10    | M.         | 11       | 11       | 8          | 3        | 7       | 4        | 5      | 2       | .....    | 1      | 11       | .....    | 11       |
| General stores.....  | 4  | 4     | 14    | {F.<br>}M. | 3<br>8   | 3<br>8   | 2<br>..... | .....    | 4       | 3        | 1      | .....   | 1<br>4   | 1<br>2 | 2<br>7   | .....    | 2<br>7   |
| Groceries.....   | 17 | 17    | 10    | {F.<br>}M. | 5<br>38  | 5<br>38  | 2<br>2     | .....    | 13      | 3        | 5      | 8       | 10       | 2<br>9 | 28<br>6  | .....    | 5<br>31  |
| Hack and 'bus lines.....   | 1  | 1     | ..... | M.         | 12       | 12       | .....      | .....    | 9       | 3        | 2      | .....   | 9        | .....  | 12       | .....    | 12       |
| Hardware, stoves and tinware.....                                | 9  | 9     | 10    | {F.<br>}M. | 1<br>23  | 1<br>23  | .....      | .....    | 10      | 1        | 3      | 8       | 7        | 3      | 1        | .....    | 1        |
| Harness.....   | 4  | 3     | 10    | M.         | 7        | 7        | .....      | 5        | 2       | 4        | 1      | 2       | 4        | .....  | 7        | .....    | 7        |
| Hotels, board'g houses and restaurants.....                      | 12 | 10    | 11    | {F.<br>}M. | 79<br>33 | 79<br>33 | .....      | 38<br>23 | 9<br>7  | 65<br>13 | 2<br>2 | 1<br>7  | 68<br>17 | .....  | 41<br>15 | 38<br>18 | 79<br>33 |
| Ice dealers, insurance, real estate and other offices.....       | 1  | ..... | 14    | M.         | 4        | 4        | .....      | 4        | 2       | 2        | .....  | 2       | 2        | .....  | 4        | .....    | 4        |
| Jewelry.....   | 1  | 1     | ..... | M.         | 1        | 1        | .....      | 1        | .....   | 1        | .....  | .....   | .....    | .....  | 1        | .....    | 1        |
| Laundries.....   | 1  | 1     | 10    | {F.<br>}M. | 5<br>1   | 5<br>1   | .....      | 2<br>1   | 3       | 5        | .....  | 1<br>1  | .....    | 4      | 5        | .....    | 5        |
| Livery stables.....  | 4  | 4     | 10    | M.         | 6        | 6        | .....      | 5        | 1       | 2        | 4      | 3       | 2        | .....  | 4        | .....    | 5        |
| Lumber yards.....  | 3  | 3     | 10    | M.         | 9        | 9        | .....      | 6        | 3       | 8        | 1      | 2       | 6        | .....  | 1        | 2        | 9        |
| Meat markets.....  | 9  | 9     | 11    | 30         | M.       | 18       | 16         | 2        | 11      | 7        | 4      | 9       | 1        | 9      | 3        | 18       | 14       |
| Millinery.....   | 2  | 2     | ..... | {F.<br>}M. | 7<br>2   | 7<br>2   | .....      | 1<br>1   | 5<br>1  | 6        | .....  | 1       | 5        | .....  | 7        | .....    | 7        |
| Musical instruments, painting, paper hanging and decorating..... | 2  | 2     | 10    | M.         | 6        | 6        | .....      | 6        | .....   | 4        | 2      | .....   | 2        | 2      | 2        | 4        | 6        |
| Paper stores.....  | 1  | 1     | ..... | {F.<br>}M. | 1<br>1   | 1<br>1   | .....      | 1<br>1   | 3       | 5        | .....  | 3       | 5        | .....  | 8        | .....    | 8        |
| Photographing.....   | 2  | 1     | 10    | {F.<br>}M. | 1<br>3   | 1<br>3   | .....      | 2<br>1   | .....   | 1        | 1      | .....   | 1<br>1   | 1<br>3 | 1<br>3   | .....    | 1<br>1   |
| Plumbing & gas fitting.....                                      | 1  | ..... | 10    | M.         | 1        | 1        | .....      | 1        | .....   | 1        | .....  | .....   | 1        | .....  | 1        | .....    | 1        |
| Printing and publishing.....                                     | 3  | 3     | 10    | {F.<br>}M. | 17<br>71 | 17<br>71 | .....      | 16<br>61 | 1<br>10 | 1<br>40  | .....  | 2<br>31 | 1<br>2   | .....  | 17<br>71 | .....    | 17<br>71 |
| Second-hand stores.....  | 1  | 1     | 10    | M.         | 1        | 1        | .....      | 1        | .....   | 1        | .....  | 1       | .....    | .....  | 1        | .....    | 1        |
| Sporting goods.....  | 1  | 1     | 10    | M.         | 1        | 1        | .....      | 1        | .....   | 1        | .....  | .....   | .....    | 1      | 1        | .....    | 1        |



TABLE NO. 83.—Continued.

| Class of Business.                          | Sanitary Condition. |     |       | Hr's per Day. | Sex. | Number of Employees. |                       |                                 | Nativity. |           | Civil Condition. |            | Number of Employ es |                |           |                      |              |                    |               |                   |                       |                           | Paid all Cash. | Paid part in Store Orders. |              |          |  |  |
|---|---------------------|-----|-------|---------------|------|----------------------|-----------------------|---------------------------------|-----------|-----------|------------------|------------|---------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------|----------------------------|--------------|----------|--|--|
|   |                     |     |       |               |      | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign.  | Married.         | Single.    | Owning Homes.       | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. |                |                            | Apprentices. |          |  |  |
|   |                     |     |       |               |      |                      |                       |                                 |           |           |                  |            |                     |                |           |                      |              |                    |               |                   |                       |                           |                |                            |              |          |  |  |
| LANSING—Continued:                          |                     |     |       |               |      |                      |                       |                                 |           |           |                  |            |                     |                |           |                      |              |                    |               |                   |                       |                           |                |                            |              |          |  |  |
| Tailoring.....                              | 6                   | 6   | 10    |               |      | 16<br>15             | 16<br>15              |                                 | 10<br>6   | 6<br>9    | 3<br>5           | 13<br>5    | 3<br>7              | 3<br>7         | 4         | 7<br>1               | 16<br>15     |                    |               |                   |                       | 1                         |                |                            |              | 16<br>15 |  |  |
| Teas, coffee and spices..                   | 1                   | 1   | 10    |               |      | 1                    | 1                     | 1                               | 1         |           |                  | 1          |                     |                |           | 1                    | 1            | 1                  |               |                   |                       |                           |                |                            | 1            |          |  |  |
| Wool, hides and pelts..                     | 1                   | 1   |       |               |      | 2                    | 2                     |                                 | 1         | 1         | 1                | 1          | 1                   | 1              |           |                      | 2            |                    |               |                   |                       |                           |                |                            | 2            |          |  |  |
| Total, city.....                            | 159                 | 144 | 10 26 |               |      | 164<br>527           | 164<br>516            | 11                              | 99<br>414 | 57<br>102 | 18<br>270        | 140<br>210 | 1<br>59             | 5<br>79        | 81<br>122 | 19<br>46             | 116<br>462   | 8                  | 41<br>34      |                   | 1<br>24               |                           |                |                            | 158<br>503   | 4        |  |  |
| LOWELL:                                     |                     |     |       |               |      |                      |                       |                                 |           |           |                  |            |                     |                |           |                      |              |                    |               |                   |                       |                           |                |                            |              |          |  |  |
| Agricultural imple-<br>ments.....           | 1                   | 1   | 10    |               |      | 2                    | 2                     |                                 | 2         |           | 2                |            | 1                   |                | 1         |                      | 2            |                    |               |                   |                       |                           |                |                            | 2            |          |  |  |
| Bakeries.....                               | 1                   | 1   | 10    |               |      | 1                    | 1                     |                                 | 1         |           |                  | 1          |                     |                | 1         |                      | 1            |                    | 1             |                   |                       |                           |                |                            | 1            |          |  |  |
| Bankers and brokers..                       | 1                   | 1   | 10    |               |      | 3                    | 3                     |                                 | 3         |           | 2                | 1          | 2                   |                |           | 1                    | 3            |                    |               |                   | 3                     |                           |                |                            | 3            |          |  |  |
| Blacksmithing.....                          | 3                   | 3   | 10    |               |      | 3                    | 3                     |                                 | 3         |           | 1                | 2          | 1                   |                | 2         |                      | 3            |                    |               |                   |                       |                           |                |                            | 3            |          |  |  |
| Boots and shoes.....                        | 2                   | 2   | 10    |               |      | 5                    | 5                     |                                 | 4         | 1         | 3                | 2          | 1                   | 2              | 1         | 1                    | 5            |                    |               |                   |                       |                           |                |                            | 5            |          |  |  |
| Clothing.....                               | 3                   | 3   | 12    |               |      | 3                    | 3                     |                                 | 3         |           | 1                | 2          |                     |                | 1         | 1                    | 1            |                    | 2             |                   |                       |                           |                |                            | 3            |          |  |  |
| Contractors, carpen-<br>ters and builders.. | 1                   | 1   | 10    |               |      | 3                    | 3                     |                                 | 3         |           | 2                | 1          | 1                   |                |           | 2                    | 3            |                    |               |                   |                       |                           |                |                            | 3            |          |  |  |
| Dress making.....                           | 2                   | 2   | 10    |               |      | 5                    | 5                     |                                 | 5         |           | 1                | 4          | 1                   | 1              | 3         | 1                    | 5            |                    |               |                   |                       |                           |                |                            | 5            |          |  |  |
| Drugs.....                                  | 1                   | 1   | 14    |               |      | 1                    | 1                     |                                 | 1         |           | 1                | 1          |                     |                |           | 1                    |              |                    | 1             |                   |                       |                           |                |                            | 1            |          |  |  |
| Dry goods.....                              | 4                   | 4   | 11 53 |               |      | 7<br>7               | 7<br>7                |                                 | 1<br>6    | 1<br>1    | 2<br>2           | 3<br>5     | 2<br>4              | 2<br>4         | 3<br>4    | 1<br>1               | 2<br>4       | 1                  |               |                   |                       |                           |                |                            | 23<br>7      |          |  |  |

[illegible]

TABLE NO. 38.—Continued.

| Class of Business.                      | Number in each Class. |       | Sanitary Condition. |               | Hrs per Day. | Sex. | Number of Employés.   |                                 |         | Nativity. |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|---------------------|---------------|--------------|------|-----------------------|---------------------------------|---------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Good.                 | Fair. | Poor.               | Total Number. |              |      | Over 16 Years of Age. | Sixteen Years of Age and under. | Native. | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|   |                       |       |                     |               |              |      |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| MASON—Continued:                        |                       |       |                     |               |              |      |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Flour, feed and grain.                  | 1                     | 1     | 14                  |               |              | M.   | 3                     |                                 | 1       | 2         | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Grain elevators.                        | 1                     | 1     | 9                   |               |              | M.   | 1                     |                                 |         | 1         |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Groceries.                              | 3                     | 3     | 12                  | 30            |              | F.   | 1                     |                                 | 1       |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Hardware, stoves and tinware.           | 2                     | 2     | 11                  |               |              | M.   | 2                     |                                 | 5       | 3         | 2        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Harness.                                | 2                     | 2     | 10                  |               |              | M.   | 3                     |                                 | 2       |           | 2        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Hotels, board'g houses and restaurants. | 3                     | 3     | 14                  | 44            |              | F.   | 9                     |                                 | 9       | 1         | 8        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Jewelry stores.                         | 1                     | 1     | 11                  |               |              | M.   | 1                     |                                 | 5       |           | 7        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Livery stables.                         | 1                     | 1     | 15                  |               |              | M.   | 1                     |                                 | 1       |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Lumber yards.                           | 1                     | 1     | 10                  |               |              | M.   | 2                     |                                 | 1       | 2         |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Meat markets.                           | 2                     | 2     | 15                  |               |              | M.   | 2                     |                                 | 2       |           | 2        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Monuments and building stone.           | 1                     | 1     | 10                  |               |              | M.   | 1                     |                                 | 2       |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Notions and fancy goods.                | 1                     | 1     | 12                  |               |              | F.   | 1                     |                                 |         |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Postoffice.                             | 1                     | 1     | 14                  |               |              | M.   | 1                     |                                 | 1       |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Printing and publishing.                | 2                     | 2     | 10                  |               |              | M.   | 6                     |                                 | 6       |           | 6        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Railroading.                            | 3                     | 3     | 11                  | 21            |              | M.   | 11                    |                                 | 7       | 9         | 2        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Tailoring.                              | 1                     | 1     | 10                  |               |              | M.   | 1                     |                                 | 4       |           | 1        |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Total, city.                            | 46                    | 46    | 12                  | 10            |              | F.   | 18                    | 75                              | 17      | 1         | 17       |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|   |                       |       |                     |               |              | M.   | 77                    | 2                               | 61      | 12        | 34       |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |

|                                     |    |    |    |            |    |    |    |    |    |    |    |   |    |    |
|-------------------------------------|----|----|----|------------|----|----|----|----|----|----|----|---|----|----|
| <b>MIDLAND:</b>                     |    |    |    |            |    |    |    |    |    |    |    |   |    |    |
| Bakeries.....                       | 1  | 1  | 10 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Barbers.....                        | 1  | 1  | 14 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Boots and shoes.....                | 1  | 1  | 10 | M.         | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2 | 2  | 2  |
| Drugs.....                          | 2  | 2  | 12 | M.         | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2 | 2  | 2  |
| General stores.....                 | 2  | 1  | 13 | 7 M.       | 17 | 17 | 12 | 5  | 11 | 6  | 11 | 4 | 1  | 1  |
| Groceries.....                      | 2  | 2  | 12 | M.         | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1 | 1  | 1  |
| Hardware.....                       | 1  | 1  | 12 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Harness.....                        | 1  | 1  | 10 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Hotels.....                         | 4  | 4  | 13 | 4 {F. {M.  | 12 | 12 | 11 | 1  | 12 | 12 | 1  | 1 | 12 | 12 |
| Livery stables.....                 | 2  | 2  | 11 | 20 M.      | 3  | 3  | 6  | 3  | 2  | 6  | 1  | 1 | 6  | 9  |
| Meat markets.....                   | 1  | 1  | 12 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Millinery.....                      | 1  | 1  | 10 | F.         | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2 | 2  | 2  |
| Plumbing and gas fitting.....       | 1  | 1  | 10 | M.         | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Printing and publishing.....        | 1  | 1  | 10 | {F. {M.    | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Tailoring.....                      | 1  | 1  | 11 | {F. {M.    | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |
| Total, town.....                    | 22 | 21 | 12 | 25 {F. {M. | 16 | 16 | 14 | 2  | 17 | 15 | 1  | 8 | 15 | 16 |
|                                     |    |    |    |            | 45 | 45 | 32 | 13 | 17 | 24 | 14 |   | 11 | 44 |
| <b>MONROE:</b>                      |    |    |    |            |    |    |    |    |    |    |    |   |    |    |
| Bakeries.....                       | 2  | 2  | 11 | M.         | 6  | 6  | 4  | 2  | 1  | 5  | 1  | 6 | 6  | 6  |
| Banking.....                        | 2  | 2  | 8  | M.         | 3  | 3  | 2  | 2  | 2  | 2  | 2  | 1 | 3  | 3  |
| Barbers.....                        | 3  | 3  | 14 | 10 M.      | 6  | 6  | 6  | 6  | 6  | 6  | 5  | 6 | 6  | 6  |
| Blacksmithing and horseshoeing..... | 7  | 7  | 10 | M.         | 13 | 13 | 12 | 1  | 3  | 10 | 4  | 1 | 13 | 13 |
| Boots and shoes.....                | 5  | 5  | 10 | {F. {M.    | 2  | 1  | 2  | 9  | 3  | 2  | 10 | 1 | 2  | 2  |
| Clothing.....                       | 4  | 4  | 12 | 36 {F. {M. | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1 | 1  | 1  |

TABLE NO. 83.—Continued.

| Class of Business.                                 | Number in each Class. |       | Sanitary Condition. |          | Hrs per Day. |    | Sex. |               | Number of Employés.   |                                 |         | Nativity. |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
|--|-----------------------|-------|---------------------|----------|--------------|----|------|---------------|-----------------------|---------------------------------|---------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|----|
|  | Good.                 | Fair. | Poor.               | Minutes. | Hours.       | M. | F.   | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |    |
|  |                       |       |                     |          |              |    |      |               |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
| MONROE—Cont'd:                                     |                       |       |                     |          |              |    |      |               |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |    |
| Coal and wood.....                                 | 1                     | 1     | 1                   | 10       | ..           | M. |      | 4             | 3                     | 1                               | 4       | ..        | 3        | 1                | ..            | 3                  | ..        | ..                   | 1            | 4                  | ..            | ..                | ..                    | ..                        | ..           | ..             | 4                          | .. |
| Crockery.....                                      | 1                     | 1     | 1                   | 12       | ..           | F. |      | 1             | 1                     | ..                              | 1       | ..        | ..       | 1                | ..            | ..                 | ..        | ..                   | 1            | 1                  | ..            | ..                | ..                    | ..                        | ..           | 1              | ..                         |    |
| Drugs.....   | 3                     | 3     | 3                   | 12       | 12           | M. |      | 5             | 4                     | 1                               | 4       | 1         | 1        | 4                | ..            | 1                  | 2         | ..                   | 2            | ..                 | 5             | ..                | ..                    | ..                        | ..           | 5              | ..                         |    |
| Dry goods.....                                     | 6                     | 6     | 6                   | 13       | 30           | F. |      | 6             | 6                     | ..                              | 3       | ..        | 2        | 4                | 2             | 2                  | ..        | ..                   | 4            | 4                  | 4             | 3                 | ..                    | ..                        | 1            | 10             | ..                         |    |
| Express companies, Furniture and under-taking..... | 1                     | 1     | 1                   | 10       | ..           | M. |      | 2             | 2                     | ..                              | 2       | ..        | ..       | 2                | ..            | 2                  | ..        | ..                   | 2            | ..                 | 2             | ..                | ..                    | ..                        | ..           | 2              | ..                         |    |
| Gas companies.....                                 | 1                     | 1     | 1                   | 10       | ..           | M. |      | 1             | 1                     | ..                              | 1       | ..        | 1        | ..               | 1             | 1                  | ..        | ..                   | 1            | ..                 | 2             | ..                | ..                    | ..                        | ..           | 1              | ..                         |    |
| Grain elevators.....                               | 4                     | 4     | 4                   | 10       | ..           | M. |      | 5             | 4                     | 1                               | 5       | ..        | 3        | 2                | 2             | 2                  | 1         | ..                   | 2            | 4                  | 1             | ..                | 1                     | ..                        | ..           | 5              | ..                         |    |
| Groceries.....                                     | 9                     | 9     | 9                   | 14       | ..           | M. |      | 16            | 14                    | 2                               | 14      | 2         | 7        | 9                | 3             | 4                  | 3         | 6                    | 6            | 13                 | 3             | ..                | 1                     | 1                         | ..           | 16             | ..                         |    |
| Hardware.....                                      | 6                     | 6     | 6                   | 10       | 34           | M. |      | 21            | 21                    | ..                              | 21      | ..        | 5        | 16               | 7             | ..                 | 3         | 11                   | 21           | ..                 | ..            | ..                | ..                    | ..                        | 1            | 21             | ..                         |    |
| Hotels, board'g-houses and restaurants.....        | 2                     | 2     | 2                   | 12       | 38           | F. |      | 8             | 8                     | ..                              | 6       | 2         | 1        | 5                | ..            | ..                 | 8         | ..                   | 2            | 2                  | 6             | ..                | ..                    | ..                        | 1            | 8              | ..                         |    |
| Ice dealers.....                                   | 1                     | 1     | 1                   | 10       | ..           | M. |      | 2             | 2                     | ..                              | 2       | ..        | 2        | ..               | 2             | ..                 | ..        | ..                   | 1            | ..                 | 2             | ..                | ..                    | ..                        | ..           | 2              | ..                         |    |
| Jewelry.....                                       | 1                     | 1     | 1                   | 10       | ..           | M. |      | 1             | 1                     | ..                              | 1       | ..        | ..       | 1                | ..            | 1                  | ..        | ..                   | 1            | ..                 | ..            | ..                | ..                    | ..                        | ..           | 2              | ..                         |    |
| Livery stables.....                                | 2                     | 2     | 2                   | 14       | 30           | M. |      | 2             | 2                     | ..                              | 2       | ..        | 1        | 1                | ..            | 1                  | 1         | ..                   | 2            | ..                 | ..            | ..                | ..                    | ..                        | ..           | 2              | ..                         |    |
| Lumber yards.....                                  | 2                     | 2     | 2                   | 10       | ..           | M. |      | 6             | 6                     | ..                              | 4       | 2         | 6        | ..               | 5             | 1                  | ..        | ..                   | ..           | 6                  | ..            | ..                | ..                    | ..                        | 1            | 6              | ..                         |    |
| Meat markets.....                                  | 3                     | 3     | 3                   | 13       | 42           | M. |      | 7             | 7                     | ..                              | 7       | ..        | ..       | 7                | ..            | 4                  | 4         | 3                    | 3            | 3                  | 4             | ..                | ..                    | ..                        | 1            | 7              | ..                         |    |
| Millinery.....                                     | 1                     | 1     | 1                   | 12       | ..           | F. |      | 1             | 1                     | ..                              | 1       | ..        | ..       | 1                | ..            | ..                 | ..        | ..                   | 1            | 1                  | ..            | ..                | ..                    | ..                        | ..           | 1              | ..                         |    |

[illegible]

TABLE NO. 33.—Continued.

| Class of Business.                           | Sanitary Condition. |       | Hrs per Day. | Number in each Class. | Number of Employees. |                       | Nativity.                       |         | Civil Condition. |          | Number of Employees |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|---------------------|-------|--------------|-----------------------|----------------------|-----------------------|---------------------------------|---------|------------------|----------|---------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  |                     |       |              |                       | Total Number.        | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.         | Married. | Single.             | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  | Good.               | Poor. |              |                       |                      |                       |                                 |         |                  |          |                     |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| MONTAGUE—Cont'd:                             |                     |       |              |                       |                      |                       |                                 |         |                  |          |                     |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Musical Instruments.....                     | 1                   | 1     | 9            |                       | 1                    | 1                     | 1                               |         |                  |          | 1                   |               |                |           | 1                    | 1            |                    |               |                   |                       |                           |              |                | 1                          |
| Printing and publishing.....                 | 1                   | 1     | 10           |                       | 3                    | 3                     | 3                               |         |                  |          | 3                   |               |                | 2         | 1                    | 3            |                    |               |                   | 1                     |                           |              |                | 3                          |
| Railroading.....                             | 1                   | 1     | 15           |                       | 2                    | 2                     | 2                               |         | 1                |          | 1                   |               |                | 1         | 1                    |              | 2                  |               |                   |                       |                           |              |                | 2                          |
| Total, town.....                             | 19                  | 18    | 10 47        |                       | 16 107               | 16 96                 | 11                              | 40 10   | 67               | 39       | 16                  | 27            | 12             | 15 38     | 1 30                 | 16 28        | 16 75              | 4             |                   | 3 10                  | 3                         |              | 16 107         |                            |
| MUSKEGON:                                    |                     |       |              |                       |                      |                       |                                 |         |                  |          |                     |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bakeries.....                                | 4                   | 2     | 1 15 35      |                       | 3 9                  | 2 1                   | 2                               | 1       | 3                |          | 3                   |               |                | 1         | 6                    | 1            | 5                  |               | 3                 | 1                     |                           |              |                | 3                          |
| Bankers and brokers.....                     | 2                   |       | 1 8 48       |                       | 10                   | 10                    |                                 | 10      |                  | 3        | 7                   | 3             |                |           | 1                    | 6            |                    |               | 10                |                       | 10                        |              |                | 9                          |
| Barber shops and bath rooms.....             | 5                   | 4     | 1 15 28      |                       | 16                   | 15                    | 1                               | 10      | 6                | 2        | 14                  |               | 2              | 12        | 2                    | 2            | 16                 |               |                   | 2                     |                           |              |                | 16                         |
| Billposting.....                             | 1                   |       | 10           |                       | 3                    | 3                     |                                 | 3       |                  | 1        | 2                   |               | 1              |           | 2                    |              | 3                  |               |                   |                       |                           |              |                | 3                          |
| Blacksmithing and horseshoeing.....          | 2                   | 2     | 10           |                       | 2                    | 2                     |                                 | 1       | 1                | 1        | 1                   |               | 1              | 1         |                      | 2            |                    |               |                   |                       |                           |              |                | 2                          |
| Books and stationery.....                    | 1                   | 1     | 14           |                       | 2                    | 2                     |                                 | 2       |                  |          | 2                   |               |                | 2         |                      | 2            |                    |               |                   |                       |                           |              |                | 2                          |
| Boots and shoes.....                         | 7                   | 6     | 1 12 50      |                       | 1 18                 | 1 15                  | 3                               | 10 8    |                  | 8        | 1                   | 3             | 4              | 8         | 3                    | 1            | 1                  | 1             | 1                 | 3                     | 5                         |              |                | 1                          |
| Cigars and tobacco.....                      | 1                   | 1     | 17           |                       | 1                    | 1                     |                                 | 1       |                  | 1        |                     |               |                | 1         |                      | 1            |                    |               |                   | 1                     |                           |              |                | 1                          |
| City laborers and water works employees..... | 1                   | 1     | 12           |                       | 3                    | 3                     |                                 |         | 3                | 1        | 2                   | 1             |                | 2         |                      |              |                    |               | 3                 |                       |                           |              |                | 3                          |
| Clothing stores.....                         | 5                   | 4     | 1 14         |                       | 11                   | 11                    |                                 | 3       | 8                | 2        | 7                   | 2             | 2              | 5         | 2                    | 9            |                    |               | 2                 |                       |                           |              |                | 11                         |
| Coal and wood yards.....                     | 1                   | 1     | 10           |                       | 1                    | 1                     |                                 |         | 1                |          | 1                   |               |                | 1         |                      | 1            |                    |               |                   |                       |                           |              |                | 1                          |

[illegible]



TABLE No. 83.—Continued.

| Class of Business.                  | Number in each Class. |       |             | Salary per Condition. Day. |                       | H's per Day. | Sex. | Number of Employés.             |           | Nativity. |            | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |        |  |
|-------------------------------------|-----------------------|-------|-------------|----------------------------|-----------------------|--------------|------|---------------------------------|-----------|-----------|------------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--------|--|
|                                     | Good.                 | Fair. | Poor.       | Total Number.              | Over 16 years of age. |              |      | Sixteen years of age and under. | Native.   | Foreign.  | Married.   | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |        |  |
|                                     |                       |       |             |                            |                       |              |      |                                 |           |           |            |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |        |  |
| MUSKOGON—Cont'd:                    |                       |       |             |                            |                       |              |      |                                 |           |           |            |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |        |  |
| Second-hand stores.....             | 1                     | 1     | 14          | M.                         | 1                     | 1            |      | 1                               |           |           |            |                  |               | 1                  |           |                      |              |                    |               |                   |                       |                           |              | 1              |                            |        |  |
| Sewing machines.....                | 1                     | 1     | 14          | { F.<br>M. }               | 5                     | 5            |      | 1                               |           |           |            |                  |               |                    | 3         |                      | 2            |                    |               |                   |                       |                           |              | 1              |                            |        |  |
| Street railways.....                | 1                     |       | 16          | { F.<br>M. }               | 12                    | 12           |      |                                 |           | 5         | 7          |                  |               | 1                  | 3         |                      | 9            |                    | 1             |                   |                       |                           |              | 1              |                            |        |  |
| Tailoring.....                      | 5                     | 1     | 2 10        | { F.<br>M. }               | 13                    | 13           |      | 1                               | 12        | 1         | 7          |                  |               | 6                  | 3         |                      | 4            |                    | 11            |                   |                       | 2                         | 3            |                | 1                          |        |  |
| Vessels and tugs.....               | 9                     |       | 15 20       | M.                         | 29                    | 29           |      | 25                              | 1         | 8         | 21         |                  |               | 1                  | 4         |                      | 23           | 1                  | 9             |                   | 27                    |                           |              | 21             |                            |        |  |
| Total, city.....                    | 155                   | 89    | 24 36 13 13 | { F.<br>M. }               | 154<br>441            | 147<br>413   |      | 102<br>261                      | 41<br>164 | 13<br>158 | 127<br>250 |                  |               | 60                 | 2<br>99   |                      | 115<br>205   | 35<br>72           | 140<br>331    | 9<br>4            | 5<br>81               |                           | 14<br>62     |                | 148<br>413                 | 1<br>1 |  |
| NILES:                              |                       |       |             |                            |                       |              |      |                                 |           |           |            |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |        |  |
| Auction stores.....                 | 1                     | 1     | 12          | M.                         | 1                     | 1            |      | 1                               |           |           |            |                  |               | 1                  |           |                      |              |                    |               |                   |                       |                           |              |                | 1                          |        |  |
| Bakeries .....                      | 1                     | 1     | 12          | M.                         | 2                     | 2            |      | 2                               | 1         |           | 2          |                  |               |                    |           |                      | 2            |                    | 2             |                   |                       |                           |              |                | 2                          |        |  |
| Bankers and brokers.....            | 3                     | 3     | 9 30        | { F.<br>M. }               | 6                     | 6            |      | 2                               |           | 5         | 1          |                  |               | 2                  | 3         |                      |              |                    |               |                   | 2                     |                           |              |                | 2                          |        |  |
| Barber shops and bath rooms.....    | 5                     | 5     | 11 42       | M.                         | 7                     | 7            |      | 6                               | 1         | 3         | 4          |                  |               |                    | 1         |                      | 5            | 1                  | 7             |                   | 6                     |                           |              |                | 7                          |        |  |
| Blacksmithing and horseshoeing..... | 4                     | 4     | 10          | M.                         | 7                     | 7            |      | 6                               | 1         | 5         | 2          |                  |               |                    | 2         |                      |              | 3                  | 7             |                   |                       |                           |              |                | 7                          |        |  |
| Books and stationery.....           | 1                     | 1     | 12          | { F.<br>M. }               | 5                     | 5            |      | 4                               | 1         |           | 5          |                  |               |                    |           |                      | 1            |                    | 1             |                   |                       |                           |              |                | 1                          |        |  |
| Boots and shoes.....                | 9                     | 9     | 11 8        | { F.<br>M. }               | 13                    | 12           |      | 1                               | 12        | 1         | 4          |                  |               | 1                  |           |                      | 2            | 3                  | 5             |                   |                       |                           |              |                | 5                          |        |  |
| Building stone and monuments.....   | 1                     | 1     | 10          | M.                         | 3                     | 3            |      | 1                               | 2         | 3         |            |                  |               | 3                  | 1         |                      | 4            | 6                  | 11            |                   | 2                     |                           | 2            |                | 13                         |        |  |

|  |    |    |       |              |          |          |          |        |        |          |    |    |          |          |         |          |    |
|--|----|----|-------|--------------|----------|----------|----------|--------|--------|----------|----|----|----------|----------|---------|----------|----|
| Clothing stores.....                             | 1  | 1  | 12    | M.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Coal and wood yards.....                         | 1  | 1  | 10    | M.           | 3        | -3       | 3        | 3      | 3      | 3        | 3  | 3  | 3        | 3        | 3       | 3        | 3  |
| Contractors, carpenters<br>and builders.....     | 1  | 1  | 10    | M.           | 7        | 7        | 5        | 2      | 6      | 1        | 3  | 3  | 1        | 7        | 1       | 7        | 7  |
| Dentist.....                                     | 1  | 1  | 10    | M.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Dress making.....                                | 1  | 1  | 10    | F.           | 5        | 5        | 5        | 5      | 5      | 5        | 5  | 5  | 5        | 5        | 5       | 5        | 5  |
| Dry goods.....                                   | 5  | 5  | 12    | { F.<br>M. } | 10<br>10 | 10<br>9  | 10<br>1  | 10     | 10     | 10       | 10 | 10 | 10       | 9        | 9       | 1        | 10 |
| Drugs.....                                       | 2  | 2  | 12    | M.           | 2        | 2        | 2        | 2      | 2      | 2        | 2  | 2  | 2        | 2        | 2       | 2        | 2  |
| Express companies.....                           | 1  | 1  | 12    | M.           | 4        | 4        | 4        | 4      | 2      | 2        | 2  | 2  | 2        | 2        | 2       | 4        | 4  |
| Furniture dealers.....                           | 2  | 2  | 12    | { F.<br>M. } | 1<br>1   | 1<br>1   | 1<br>1   | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Gas companies.....                               | 1  | 1  | 15    | M.           | 2        | 2        | 2        | 2      | 2      | 2        | 2  | 2  | 2        | 2        | 2       | 2        | 2  |
| Gas fixtures.....                                | 1  | 1  | 12    | M.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| General stores.....                              | 1  | 1  | 12    | F.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Groceries.....                                   | 12 | 12 | 12-22 | { F.<br>M. } | 2<br>19  | 2<br>19  | 1<br>16  | 1<br>3 | 5      | 2        | 14 | 1  | 5        | 8        | 6       | 1        | 2  |
| Hardware, stoves and<br>tinware.....             | 5  | 5  | 10-36 | M.           | 13       | 13       | 12       | 1      | 6      | 7        | 1  | 5  | 4        | 3        | 12      | 1        | 13 |
| Harness.....                                     | 2  | 2  | 11    | M.           | 4        | 4        | 4        | 4      | 2      | 2        | 2  | 1  | 1        | 1        | 4       | 4        | 4  |
| Hats, caps and gents'<br>furnishing goods.....   | 1  | 1  | 12    | M.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Hotels, board'g houses }<br>and restaurants..... | 8  | 8  | 11-54 | { F.<br>M. } | 25<br>18 | 25<br>18 | 17<br>15 | 7<br>3 | 7<br>4 | 17<br>14 | 1  | 2  | 25<br>15 | 14<br>10 | 11<br>8 | 25<br>18 | 25 |
| Insurance, real estate<br>and other offices..... | 1  | 1  | 12    | M.           | 2        | 2        | 2        | 2      | 1      | 1        | 1  | 1  | 1        | 1        | 2       | 2        | 2  |
| Livery stables.....                              | 4  | 4  | 14    | M.           | 8        | 8        | 8        | 8      | 8      | 8        | 8  | 8  | 5        | 3        | 8       | 8        | 8  |
| Lumber yards.....                                | 3  | 3  | 11-28 | M.           | 35       | 35       | 21       | 14     | 29     | 6        | 6  | 23 | 3        | 3        | 35      | 35       | 35 |
| Machinery.....                                   | 1  | 1  | 10    | M.           | 3        | 3        | 3        | 3      | 1      | 2        | 2  | 2  | 1        | 3        | 2       | 3        | 3  |
| Meat markets.....                                | 3  | 3  | 12    | M.           | 9        | 9        | 4        | 5      | 3      | 6        | 1  | 2  | 6        | 9        | 1       | 9        | 9  |
| Millinery stores.....                            | 3  | 3  | 10    | F.           | 9        | 9        | 9        | 9      | 9      | 9        | 1  | 4  | 4        | 9        | 9       | 9        | 9  |
| Musical instruments.....                         | 1  | 1  | 12    | F.           | 1        | 1        | 1        | 1      | 1      | 1        | 1  | 1  | 1        | 1        | 1       | 1        | 1  |
| Painting, paper-hang-<br>ing and decorating..... | 5  | 5  | 10    | M.           | 10       | 10       | 10       | 10     | 2      | 8        | 1  | 1  | 2        | 6        | 10      | 10       | 10 |

TABLE No. 38.—Continued.

| Class of Business.                           | Number in each class. |       |       | Sanitary Condition. |          | Hrs per Day.  |  | Number of Employees.  |                                 |         | Nativity. |          | Civil Condition. |               | Employés       |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|-------|---------------------|----------|---------------|--|-----------------------|---------------------------------|---------|-----------|----------|------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Fair.                 |       | Poor. | Sex.                |          | Total Number. |  | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  | Good.                 | Fair. | Poor. | Hours.              | Minutes. |               |  |                       |                                 |         |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| NILES—Continued:                             |                       |       |       |                     |          |               |  |                       |                                 |         |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Photographing.....                           | 1                     | 1     |       | 10                  |          |               |  | 1                     | 1                               | 1       |           |          | 1                |               |                |           |                      |              | 1                  | 1             |                   |                       |                           |              |                | 1                          |
| Plumbing and gas fitting.....                | 1                     | 1     |       | 10                  |          |               |  | 3                     | 3                               | 3       |           | 2        | 1                |               |                |           | 2                    | 1            | 3                  |               |                   |                       |                           |              |                | 3                          |
| Printing and publishing.....                 | 3                     | 3     |       | 10                  |          |               |  | 5                     | 4                               | 5       | 1         |          | 3                |               |                |           | 1                    | 2            | 1                  | 5             |                   |                       |                           |              |                | 5                          |
| Railroading.....                             | 2                     | 2     |       | 11                  | 5        |               |  | 89                    | 89                              | 36      | 53        | 60       | 29               | 31            | 23             | 11        | 14                   |              |                    | 89            | 1                 | 18                    |                           |              |                | 89                         |
| Tailoring.....                               | 3                     | 3     |       | 10                  | 13       |               |  | 8                     | 8                               | 1       | 1         | 2        | 6                |               | 2              | 1         | 6                    |              | 1                  | 8             |                   |                       |                           |              |                | 8                          |
| Telegraphing.....                            | 1                     | 1     |       | 12                  |          |               |  | 2                     | 2                               | 2       |           |          | 2                |               |                | 2         |                      |              |                    | 2             |                   |                       |                           |              |                | 2                          |
| Undertaking.....                             | 1                     | 1     |       | 12                  |          |               |  | 1                     | 1                               | 1       |           |          | 1                |               |                | 1         |                      |              |                    | 1             |                   |                       |                           |              |                | 1                          |
| Woolens.....                                 | 1                     | 1     |       | 14                  |          |               |  | 9                     | 9                               | 9       |           | 1        | 8                |               |                | 9         |                      |              | 9                  |               |                   |                       |                           |              |                | 9                          |
| Total, city.....                             | 105                   | 104   |       | 11                  | 21       |               |  | 62                    | 62                              | 50      | 10        | 8        | 52               | 1             | 87             | 43        | 17                   |              | 45                 | 16            | 2                 |                       |                           |              |                | 62                         |
|  |                       |       |       |                     |          |               |  | 315                   | 312                             | 226     | 89        | 156      | 157              | 61            |                | 84        | 73                   |              | 177                | 137           | 26                |                       |                           |              |                | 315                        |
| NORTH MUSKOGON:                              |                       |       |       |                     |          |               |  |                       |                                 |         |           |          |                  |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| City laborers and water-works employés.....  | 1                     | 1     |       | 12                  |          |               |  | 2                     | 2                               | 2       |           | 2        |                  | 2             |                |           |                      |              | 2                  |               |                   |                       |                           |              |                | 2                          |
| Groceries.....                               | 2                     | 2     |       | 15                  |          |               |  | 5                     | 5                               | 2       | 3         | 2        | 3                | 1             | 1              | 1         | 2                    |              | 4                  | 1             |                   |                       |                           |              |                | 5                          |
| Hardware, stoves and tinware.....            | 1                     | 1     |       | 10                  |          |               |  | 1                     | 1                               |         | 1         |          | 1                |               |                | 1         |                      |              | 1                  |               |                   |                       |                           |              |                | 1                          |
| Hotels, boarding houses and restaurants..... | 1                     | 1     |       | 13                  |          |               |  | 4                     | 4                               | 4       |           | 2        | 2                |               |                | 4         |                      |              |                    | 4             |                   |                       |                           |              |                | 4                          |
|  |                       |       |       |                     |          |               |  | 1                     | 1                               | 1       | 1         | 1        |                  | 1             |                | 1         | 1                    |              | 1                  | 1             |                   |                       |                           |              | 1              |                            |
| Livery stables.....                          | 1                     | 1     |       | 12                  |          |               |  | 2                     | 2                               | 2       |           |          | 2                |               |                | 2         |                      |              |                    | 2             |                   |                       |                           |              |                | 2                          |
| Meat markets.....                            | 3                     |       |       | 2                   | 48       |               |  | 5                     | 4                               | 1       | 1         | 4        | 4                | 1             |                | 3         | 1                    |              |                    | 5             |                   |                       |                           |              |                | 5                          |
| Total, town.....                             | 9                     | 6     |       | 2                   | 14       | 3             |  | 4                     | 4                               | 4       |           | 2        | 2                | 4             | 1              | 4         |                      | 5            | 2                  | 9             | 1                 |                       |                           |              |                | 4                          |
|  |                       |       |       |                     |          |               |  | 16                    | 15                              | 1       | 8         | 5        | 10               | 4             |                | 8         | 3                    |              | 5                  | 2             |                   |                       |                           |              |                | 16                         |

| PORT HURON:                                   |    |    |    |               |          |          |         |         |        |          |         |    |          |          |          |   |        |          |    |
|---|----|----|----|---------------|----------|----------|---------|---------|--------|----------|---------|----|----------|----------|----------|---|--------|----------|----|
| Agricult'al implements                        | 2  | 2  | 10 | M.            | 8        | 8        | 7       | 1       | 3      | 5        | 1       | 2  | 4        | 1        | 8        |   |        |          | 8  |
| Bakeries                                      | 2  | 2  | 12 | {F.<br>M.}    | 3<br>6   | 3<br>6   | 1<br>1  | 2<br>5  | 3<br>3 | 3<br>3   |         | 3  |          |          | 3        |   |        | 3        | 3  |
| Bankers and brokers                           | 4  | 3  | 1  | M.            | 13       | 13       | 11      | 2       | 5      | 4        | 7       |    | 4        | 2        | 5        |   | 2      | 5        | 13 |
| Barber shops and bath<br>rooms                | 3  | 3  | 12 | 36            | M.       | 5        | 4       | 1       | 3      | 2        |         | 2  | 2        | 1        | 5        |   |        | 5        | 5  |
| Blacksmithing and<br>horseshoeing             | 6  | 6  | 10 | M.            | 12       | 12       | 10      | 2       | 3      | 9        |         | 3  | 9        |          | 12       |   |        | 12       | 12 |
| Boots and shoes                               | 4  | 4  | 12 | 15            | M.       | 8        | 3       | 5       | 3      | 5        | 3       | 1  | 4        |          | 8        |   |        | 8        | 8  |
| Bottling works                                | 2  | 2  | 10 | M.            | 5        | 5        | 1       | 4       | 3      | 2        | 2       | 1  | 2        |          | 5        |   |        | 5        | 5  |
| Carpet stores                                 | 1  | 1  | 12 | M.            | 3        | 3        | 2       | 1       | 2      | 1        | 2       |    | 1        |          | 3        |   |        | 3        | 3  |
| Cigars and tobacco                            | 1  | 1  | 12 | M.            | 1        | 1        | 1       |         |        | 1        |         |    |          |          | 1        |   |        |          |    |
| Clothing stores                               | 5  | 5  | 12 | 21            | M.       | 11       | 4       | 7       | 4      | 7        | 1       | 1  | 8        | 1        | 11       |   |        | 11       | 11 |
| Coal and wood yards                           | 3  | 3  | 10 | M.            | 10       | 10       | 8       | 2       | 4      | 6        | 1       | 3  | 6        |          | 8        |   |        | 8        | 8  |
| Commission stores                             | 2  | 2  | 10 | M.            | 4        | 4        | 3       | 1       | 2      | 2        | 2       |    | 1        | 1        | 2        |   | 2      | 4        | 4  |
| Contractors, carpenters<br>and builders       | 2  | 2  | 10 | M.            | 35       | 35       | 30      | 5       | 32     | 3        | 20      | 9  | 5        | 1        | 35       |   | 2      | 35       | 35 |
| Drugs   | 6  | 6  | 14 | 43            | M.       | 11       | 10      | 1       | 10     | 3        | 8       | 2  | 1        | 4        | 11       |   | 1      | 11       | 11 |
| Dry goods                                     | 5  | 5  | 11 | 38 {F.<br>M.} | 23<br>45 | 19<br>41 | 4<br>4  | 5<br>13 | 19     | 23<br>24 | 2<br>5  |    | 10<br>14 | 11<br>37 | 16<br>37 |   | 2<br>4 | 16<br>37 | 16 |
| Express companies                             | 1  | 1  | 10 | M.            | 9        | 9        | 6       | 3       | 4      | 5        | 2       | 4  | 2        | 1        |          |   |        | 9        | 9  |
| Electric light compa-<br>nies                 | 1  | 1  | 12 | M.            | 3        | 3        | 3       |         | 2      | 1        | 2       | 1  |          |          |          | 3 |        | 3        | 3  |
| Flour, feed and grain                         | 2  | 2  | 12 | 13            | M.       | 9        | 5       | 4       | 5      | 4        | 2       | 2  | 5        |          | 9        |   |        | 9        | 9  |
| Forwarding docks                              | 1  | 1  | 12 | M.            | 2        | 2        | 2       |         | 1      | 1        |         | 1  |          | 1        | 2        |   |        | 2        | 2  |
| Fruit, confectionery }<br>-and canned goods } | 3  | 3  | 11 | 48 {F.<br>M.} | 4<br>6   | 3<br>6   | 3<br>4  | 1<br>2  | 2      | 4<br>4   | 1       |    | 2<br>4   | 1<br>4   | 4<br>6   |   |        | 4<br>6   | 4  |
| Furniture                                     | 4  | 4  | 10 | 53            | M.       | 9        | 9       |         | 5      | 4        | 2       | 4  | 3        |          | 9        |   |        | 9        | 9  |
| Grain elevators                               | 3  | 3  | 10 | M.            | 55       | 55       | 35      | 20      | 33     | 22       | 5       | 28 | 17       | 5        | 55       |   |        | 55       | 55 |
| Groceries                                     | 16 | 16 | 12 | 9 {F.<br>M.}  | 2<br>59  | 2<br>54  | 2<br>43 |         | 20     | 2<br>37  | 7<br>11 |    |          | 1<br>25  | 16<br>58 |   | 2<br>8 | 2<br>59  | 2  |
| Hardware, stoves and<br>tinware               | 3  | 3  | 11 | 15            | M.       | 19       | 14      | 5       | 12     | 7        | 5       | 5  | 7        | 2        | 19       |   | 2      | 19       | 19 |
| Harness                                       | 2  | 2  | 11 | M.            | 4        | 4        | 4       |         |        | 4        |         |    | 4        |          | 4        |   |        | 4        | 4  |

TABLE No. 83.—Continued.

| Class of Business.  | Number in each Class. |       | Sanitary Condition. |        | Hrs per Day. | Sex.       | Number of Employés. |               |                       | Nativity.                       |          | Civil Condition. |          | Number of Employés |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|---------------------|--------|--------------|------------|---------------------|---------------|-----------------------|---------------------------------|----------|------------------|----------|--------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Good.                 | Fair. | Poor.               | Hours. |              |            | Minutes.            | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.  | Foreign.         | Married. | Single.            | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|   |                       |       |                     |        |              |            |                     |               |                       |                                 |          |                  |          |                    |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| PORT HURON—Con.:<br>Hats, caps and gents' furnishing goods.....<br>Hotels, boarding-houses and restaurants.....<br>House moving.....<br>Insurance, real estate and other offices.....<br>Ice dealers.....<br>Jewelry.....<br>Laundries.....<br>Livery stables.....<br>Lumber yards.....<br>Markets.....<br>Meat markets.....<br>Millinery stores.....<br>Notions and fancy goods.....<br>Painting, paper-hanging and decorating.....<br>Paper dealers.....<br>Paper carriers..... | 1                     | 1     | 1                   | 12     |              | M.         | 1                   | 1             |                       | 1                               |          |                  | 1        |                    |               |                |           | 1                    | 1            |                    |               |                   |                       |                           | 1            |                |                            |
|   | 11                    | 10    | 1                   | 12     |              | { F.<br>M. | 62<br>33            | 62<br>32      | 1                     | 28<br>19                        | 34<br>14 | 7                | 62<br>26 | 2                  |               | 62<br>28       | 3         | 38<br>19             | 20<br>11     |                    |               |                   |                       |                           |              | 58<br>30       |                            |
|   | 1                     | 1     |                     | 10     |              | M.         | 4                   | 4             |                       | 4                               |          | 2                | 2        |                    |               | 1              | 2         | 1                    | 4            |                    |               |                   |                       |                           | 4            |                |                            |
|   | 1                     | 1     | 10                  |        |              | M.         | 1                   | 1             |                       |                                 | 1        | 1                |          | 1                  |               |                |           |                      | 1            |                    |               |                   |                       |                           |              | 1              |                            |
|   | 1                     | 1     | 10                  |        |              | M.         | 3                   | 3             |                       | 3                               |          | 1                | 2        | 1                  |               |                | 2         |                      | 3            |                    |               |                   |                       |                           |              | 3              |                            |
|   | 3                     | 3     | 11                  | 5      |              | { F.<br>M. | 1<br>12             | 1<br>12       |                       | 1<br>10                         | 2        | 2                | 10       | 4                  |               | 2              | 1         | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
|   | 2                     | 2     | 10                  |        |              | { F.<br>M. | 8<br>1              | 8<br>1        |                       | 4<br>1                          | 4        |                  | 8        |                    |               |                | 1         | 1                    | 1            | 1                  |               |                   |                       |                           |              | 8              |                            |
|   | 3                     | 3     | 14                  |        |              | { F.<br>M. | 1<br>18             | 1<br>17       |                       | 12<br>1                         | 1        | 3                | 10       | 5                  |               | 1              | 10        | 3                    | 18           |                    |               |                   |                       |                           |              | 1              |                            |
|   | 3                     | 3     | 10                  | 40     |              | M.         | 12                  | 12            |                       | 6                               | 6        | 7                | 5        | 6                  | 1             | 1              | 5         | 12                   |              |                    |               |                   |                       |                           |              | 12             |                            |
|   | 4                     | 4     | 11                  | 30     |              | { F.<br>M. | 1<br>9              | 1<br>7        | 2                     | 8<br>1                          | 1        | 3                | 6        | 1                  | 2             |                | 1         | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
|   | 4                     | 4     | 13                  | 41     |              | M.         | 13                  | 12            | 1                     | 6                               | 7        | 5                | 8        | 1                  | 4             |                | 3         | 5                    | 13           |                    |               | 1                 |                       |                           |              | 13             |                            |
|   | 4                     | 4     | 10                  |        |              | F.         | 9                   | 9             |                       | 9                               |          |                  | 9        |                    |               |                |           | 9                    | 9            |                    |               |                   |                       |                           |              | 9              |                            |
|   | 3                     | 3     | 11                  | 50     |              | { F.<br>M. | 9<br>15             | 9<br>14       | 1                     | 9<br>13                         | 9        |                  | 9        |                    |               |                | 1         | 8                    | 9            |                    |               |                   |                       |                           |              | 9              |                            |
| 1   | 1                     | 10    |                     |        | M.           | 3          | 3                   |               | 3                     |                                 | 1        | 2                | 1        |                    |               | 2              | 3         | 15                   |              |                    |               |                   |                       |                           | 15           |                |                            |
| 1   | 1                     | 1     | 12                  |        | F.           | 1          | 1                   |               | 1                     |                                 |          |                  | 1        |                    |               |                | 1         | 1                    |              |                    |               |                   |                       |                           | 1            |                |                            |
| 1   | 1                     | 4     |                     |        | M.           | 11         |                     | 11            | 8                     | 8                               |          |                  | 11       |                    |               |                | 11        | 11                   |              |                    |               |                   |                       |                           |              | 11             |                            |

[illegible]

TABLE No. 33 —Continued.

| Class of Business.                           | Number in each Class. |       | Hr's per Day. |       | Sex.  | Number of Employés. |          |               | Nativity.             |                                 | Civil Condition. |          | Number of Employés |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|---------------|-------|-------|---------------------|----------|---------------|-----------------------|---------------------------------|------------------|----------|--------------------|---------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Sanitary Condition.   |       | Fair.         | Poor. |       | Hours.              | Minutes. | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.          | Foreign. | Married.           | Single. | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  | Good.                 | Fair. |               |       |       |                     |          |               |                       |                                 |                  |          |                    |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| REED CITY—Cont'd:                            |                       |       |               |       |       |                     |          |               |                       |                                 |                  |          |                    |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| General stores.....                          | 2                     | 2     | 13            |       | F. M. | 1                   | 1        | 1             | 1                     |                                 | 1                | 1        |                    |         |               |                | 1         |                      | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
| Groceries.....                               | 6                     | 5     | 1             | 11    | 30    | M.                  | 12       | 11            | 1                     | 6                               | 6                | 9        | 3                  |         | 7             | 2              |           | 1                    | 11           | 1                  |               |                   |                       |                           |              | 12             |                            |
| Hotels, boarding houses and restaurants..... | 10                    | 3     | 7             | 13    | 55    | F.                  | 33       | 33            |                       | 21                              | 12               | 2        | 31                 |         |               |                | 33        |                      | 33           |                    |               |                   |                       | 1                         |              | 30             |                            |
|  |                       |       |               |       |       | M.                  | 10       | 10            |                       | 8                               | 2                | 2        | 8                  |         |               |                | 10        |                      | 10           |                    |               |                   |                       |                           |              | 10             |                            |
| Hardware.....                                | 1                     | 1     | 1             | 10    |       | M.                  | 2        | 1             | 1                     | 1                               | 1                |          | 2                  |         |               |                | 1         | 1                    | 2            |                    |               |                   |                       |                           |              | 2              |                            |
| Ice dealers.....                             | 1                     | 1     | 10            |       | M.    | 1                   | 1        | 1             | 1                     |                                 | 1                | 1        |                    |         |               |                |           | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
| Livery stables.....                          | 2                     | 2     | 11            |       | M.    | 2                   | 2        | 2             |                       | 2                               |                  | 2        |                    | 1       | 1             |                |           | 1                    | 1            | 1                  |               |                   |                       |                           |              | 2              |                            |
| Meat markets.....                            | 2                     | 2     | 14            | 40    | M.    | 3                   | 3        | 3             |                       | 2                               | 1                |          | 3                  | 1       | 1             | 1              |           | 3                    | 3            |                    |               |                   |                       |                           |              | 3              |                            |
| Millinery.....                               | 1                     | 1     | 8             |       | F.    | 2                   | 2        | 2             |                       | 2                               |                  |          | 2                  |         |               |                |           | 2                    | 2            |                    |               |                   |                       |                           |              | 2              |                            |
| Printing and publishing.....                 | 1                     | 1     | 10            |       | M.    | 3                   | 2        | 1             |                       | 3                               |                  | 2        | 1                  | 1       | 1             | 1              |           |                      | 3            | 3                  |               |                   | 1                     |                           |              | 3              |                            |
| Tailoring.....                               | 2                     | 2     | 10            |       | F. M. | 4                   | 4        | 4             |                       | 3                               | 1                | 2        | 2                  | 1       | 1             | 1              | 1         | 1                    | 4            | 4                  |               |                   |                       | 1                         |              | 4              |                            |
|  |                       |       |               |       |       | 7                   | 7        | 7             |                       | 2                               | 5                | 4        | 3                  | 1       | 3             | 3              | 3         |                      | 7            |                    |               |                   |                       |                           |              | 7              |                            |
| Total, city.....                             | 47                    | 30    | 16            | 12    | 11    | F. M.               | 42       | 42            |                       | 27                              | 15               | 4        | 38                 | 1       | 1             | 37             | 8         | 42                   |              |                    | 8             |                   | 2                     | 9                         | 42           |                |                            |
|  |                       |       |               |       |       |                     | 70       | 66            | 4                     | 45                              | 25               | 31       | 39                 | 19      | 12            | 28             | 7         | 62                   |              |                    |               |                   |                       | 2                         | 1            | 70             |                            |
| SAGINAW:                                     |                       |       |               |       |       |                     |          |               |                       |                                 |                  |          |                    |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Agricultural implem'ts.....                  | 1                     | 1     | 10            |       | M.    | 2                   | 2        | 2             |                       | 1                               | 1                | 2        |                    | 1       | 1             |                |           | 2                    | 2            |                    |               |                   |                       |                           |              | 2              |                            |
| Art stores.....                              | 1                     | 1     | 8             |       | F.    | 1                   | 1        | 1             |                       |                                 | 1                |          | 1                  |         |               | 1              |           | 1                    | 1            |                    |               |                   |                       |                           |              | 1              |                            |
| Bakeries.....                                | 2                     | 2     | 7             | 30    | F. M. | 1                   | 1        | 1             |                       |                                 | 1                |          | 1                  |         |               | 1              |           | 1                    | 1            |                    |               |                   |                       |                           |              | 1              |                            |
|  |                       |       |               |       |       | 2                   | 2        | 2             |                       |                                 | 2                |          | 2                  |         |               | 2              |           | 2                    | 2            |                    |               |                   |                       |                           |              | 2              |                            |

|   |    |    |    |    |            |           |           |           |          |          |          |           |           |           |           |           |           |           |           |
|---|----|----|----|----|------------|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Banking.....                                    | 2  | 1  | 1  | 8  | M.         | 9         | 9         | 8         | 1        | 3        | 6        | 2         | 1         | 2         | 4         | 9         | 3         | 3         | 9         |
| Barber shops.....                               | 4  | 3  | 1  | 14 | M.         | 7         | 7         | 6         | 1        | 5        | 2        | 2         | 5         | 2         | 3         | 7         | 7         | 7         | 7         |
| Blacksmithing.....                              | 7  | 7  | 10 | 6  | M.         | 9         | 9         | 2         | 7        | 6        | 3        | 5         | 3         | 1         | 6         | 6         | 1         | 9         | 9         |
| Books and stationery.....                       | 1  | 1  | 12 | 12 | M.         | 3         | 3         | 3         | 3        | 3        | 3        | 3         | 3         | 1         | 2         | 3         | 3         | 3         | 3         |
| Booming and rafting {<br>logs.....}             | 1  | 1  | 12 | 12 | { F.<br>M. | 18<br>390 | 18<br>390 | 13<br>195 | 5<br>89  | 2<br>301 | 16<br>46 | 18<br>390 | 18<br>390 | 18<br>390 | 18<br>390 | 18<br>390 | 18<br>390 | 18<br>390 | 18<br>390 |
| Boots and shoes.....                            | 3  | 3  | 10 | 45 | M.         | 5         | 5         | 3         | 2        | 2        | 3        | 1         | 1         | 2         | 1         | 5         | 5         | 5         | 5         |
| Cigars and tobacco.....                         | 1  | 1  | 10 | 10 | M.         | 1         | 1         | 1         | 1        | 1        | 1        | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |
| City water-works.....                           | 1  | 1  | 12 | 12 | M.         | 4         | 4         | 1         | 3        | 4        | 4        | 4         | 4         | 4         | 4         | 4         | 4         | 4         | 4         |
| Clothing stores.....                            | 2  | 2  | 12 | 12 | M.         | 4         | 4         | 4         | 4        | 1        | 3        | 1         | 2         | 2         | 1         | 4         | 4         | 4         | 4         |
| Crockery stores.....                            | 1  | 1  | 12 | 12 | M.         | 1         | 1         | 1         | 1        | 1        | 1        | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |
| Drugs.....                                      | 7  | 7  | 14 | 15 | M.         | 8         | 6         | 7         | 1        | 1        | 8        | 3         | 5         | 7         | 7         | 7         | 1         | 2         | 8         |
| Dry goods.....                                  | 2  | 2  | 10 | 10 | { F.<br>M. | 13<br>29  | 13<br>29  | 13<br>23  | 6        | 7        | 11<br>22 | 1<br>3    | 1<br>5    | 2         | 9<br>17   | 13<br>29  | 13<br>29  | 13<br>29  | 13<br>29  |
| Furniture stores.....                           | 4  | 4  | 10 | 10 | M.         | 6         | 5         | 5         | 1        | 1        | 5        | 2         | 1         | 2         | 1         | 6         | 6         | 6         | 6         |
| Groceries.....                                  | 16 | 16 | 11 | 49 | { F.<br>M. | 1<br>52   | 1<br>52   | 1<br>40   | 12<br>21 | 21<br>3  | 1<br>31  | 15<br>14  | 5<br>14   | 1<br>1    | 1<br>17   | 1<br>49   | 1<br>1    | 1<br>52   | 1<br>52   |
| Hack and 'bus lines.....                        | 1  | 1  | 12 | 12 | M.         | 7         | 7         | 7         | 7        | 3        | 4        | 4         | 4         | 3         | 3         | 7         | 7         | 7         | 7         |
| Hardware.....                                   | 3  | 3  | 10 | 28 | { F.<br>M. | 1<br>22   | 1<br>22   | 1<br>16   | 6<br>10  | 10<br>4  | 1<br>12  | 6<br>4    | 4<br>3    | 3         | 9         | 1<br>22   | 1<br>8    | 1<br>22   | 1<br>22   |
| Harness.....                                    | 3  | 3  | 9  | 48 | M.         | 5         | 5         | 5         | 5        | 4        | 1        | 3         | 2         | 2         | 5         | 5         | 2         | 5         | 5         |
| Hotels, board'g houses,<br>and restaurants..... | 13 | 12 | 11 | 15 | { F.<br>M. | 44<br>23  | 44<br>23  | 36<br>14  | 8<br>9   | 3<br>4   | 41<br>19 | 43<br>22  | 43<br>22  | 1<br>1    | 19<br>5   | 19<br>5   | 24<br>16  | 44<br>21  | 44<br>21  |
| Jewelry stores.....                             | 2  | 2  | 11 | 20 | M.         | 3         | 2         | 3         | 2        | 1        | 3        | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 3         |
| Laundries.....                                  | 1  | 1  | 10 | 10 | F.         | 3         | 3         | 2         | 1        | 1        | 2        | 1         | 1         | 1         | 1         | 3         | 3         | 3         | 3         |
| Livery stables.....                             | 1  | 1  | 12 | 12 | M.         | 1         | 1         | 1         | 1        | 1        | 1        | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         |
| Lumber yards.....                               | 1  | 1  | 10 | 10 | M.         | 41        | 41        | 14        | 27       | 28       | 13       | 20        | 8         | 7         | 6         | 41        | 14        | 41        | 41        |
| Meat markets.....                               | 4  | 4  | 11 | 8  | M.         | 7         | 7         | 2         | 5        | 1        | 6        | 1         | 4         | 4         | 1         | 4         | 3         | 7         | 7         |
| Millinery stores.....                           | 2  | 2  | 10 | 10 | F.         | 2         | 2         | 2         | 2        | 2        | 2        | 2         | 2         | 2         | 1         | 2         | 2         | 2         | 2         |
| Notions and fancy<br>goods.....                 | 3  | 3  | 9  | 30 | F.         | 4         | 4         | 3         | 1        | 1        | 4        | 4         | 3         | 3         | 1         | 4         | 3         | 4         | 4         |



TABLE NO. 33.—Continued.

| Class of Business.                              | Number in each Class. |       |       | Sanitary Condition. |          | Hrs per Day.    |                       | Sex.      | Number of Employees.            |           |           | Nativity. |           | Civil Condition. |                | Employees |                      |              |                    |               |                   |                       |                           |              |                |                            |
|---|-----------------------|-------|-------|---------------------|----------|-----------------|-----------------------|-----------|---------------------------------|-----------|-----------|-----------|-----------|------------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|   | Good.                 | Fair. | Poor. | Hours.              | Minutes. | Total Number.   | Over 16 years of age. |           | Sixteen years of age and under. | Native.   | Foreign.  | Married.  | Single.   | Owning Homes.    | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all cash. | Paid part in Store Orders. |
|   |                       |       |       |                     |          |                 |                       |           |                                 |           |           |           |           |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| SAGINAW—Cont'd.:                                |                       |       |       |                     |          |                 |                       |           |                                 |           |           |           |           |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Painting, paper-hang-<br>ing and decorating.... | 1                     | 1     | 10    |                     |          | M.              | 3                     | 3         | 3                               |           |           | 3         |           |                  |                |           | 1                    | 2            | 3                  |               |                   |                       |                           |              |                | 3                          |
| Printing and publishing                         | 2                     | 2     | 10    |                     |          | M.              | 3                     | 2         | 1                               | 3         |           | 3         | 2         |                  |                |           | 1                    | 3            |                    |               |                   |                       |                           |              |                | 3                          |
| Stone dealers.....                              | 1                     | 1     | 10    |                     |          | M.              | 1                     | 1         | 1                               | 1         |           | 1         |           |                  |                |           |                      | 1            |                    |               |                   |                       |                           |              |                | 1                          |
| Street railways.....                            | 1                     | 1     | 11    |                     |          | M.              | 16                    | 16        |                                 | 12        | 4         | 14        | 2         | 7                | 7              | 1         | 1                    | 1            | 16                 |               |                   | 5                     |                           |              |                | 16                         |
| Teas, coffee and spices.                        | 1                     | 1     | 13    |                     |          | M.              | 1                     | 1         | 1                               | 1         |           | 1         |           |                  |                |           | 1                    | 1            | 1                  |               |                   |                       |                           |              | 1              |                            |
| Tin shops.....                                  | 2                     | 2     | 10    |                     |          | M.              | 2                     | 1         | 1                               | 1         | 1         |           | 2         | 1                |                |           | 1                    | 2            |                    |               |                   |                       |                           |              | 1              | 2                          |
| Wall paper stores.....                          | 1                     | 1     | 12    |                     |          | M.              | 1                     | 1         | 1                               | 1         |           | 1         |           |                  |                |           |                      | 1            |                    |               |                   |                       |                           |              | 1              | 1                          |
| Total, city.....                                | 99                    | 95    | 4     | 11                  | 40       | F. 88<br>M. 674 | 88<br>674             | 88<br>657 | 77                              | 71<br>385 | 17<br>289 | 7<br>204  | 81<br>469 | 1<br>123         | 2<br>45        | 71<br>294 | 14<br>77             | 42<br>418    | 46<br>210          | 45<br>45      | 1                 | 2<br>68               | 4<br>15                   | 3<br>3       | 88<br>674      |                            |
| SCHOOLCRAFT:                                    |                       |       |       |                     |          |                 |                       |           |                                 |           |           |           |           |                  |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Barber shops and bath<br>rooms.....             | 1                     | 1     | 14    |                     |          | M.              | 1                     | 1         | 1                               |           | 1         |           | 1         |                  |                |           | 1                    |              |                    |               |                   |                       |                           |              |                | 1                          |
| Blacksmithing.....                              | 1                     | 1     | 10    |                     |          | M.              | 3                     | 3         |                                 | 3         | 3         |           |           |                  |                |           |                      | 3            |                    |               |                   |                       |                           |              |                | 3                          |
| Books and stationery...                         | 1                     | 1     | 12    |                     |          | M.              | 1                     | 1         | 1                               | 1         |           | 1         |           |                  |                |           | 1                    |              |                    |               |                   |                       |                           |              |                | 1                          |
| Contractors, carpenters<br>and builders.....    | 2                     | 2     | 10    |                     |          | F. 2<br>M. 342  | 2<br>342              | 2<br>332  | 10                              | 35<br>307 | 2<br>155  | 2<br>187  | 20<br>100 |                  |                | 2<br>292  |                      |              |                    | 342           | 2                 | 20                    |                           |              | 2              | 342                        |
| Drugs.....                                      | 1                     | 1     | 12    |                     |          | M.              | 2                     | 2         |                                 | 1         | 1         | 1         | 1         | 1                |                | 1         |                      |              |                    | 2             |                   |                       |                           |              |                | 2                          |
| Dry goods.....                                  | 1                     | 1     | 10    |                     |          | M.              | 1                     | 1         | 1                               | 1         |           | 1         |           |                  |                |           | 1                    |              |                    |               |                   |                       |                           |              |                | 1                          |

[illegible]

ST. IGNACE:

44

TABLE NO. 33.—Continued.

| Class of Business.                           | Sanitary Condition. |       | Hrs per Day. | Sex.       | Number of Employees. |           |               | Nativity.             |                                 | Civil Condition. |          | Number of Employees |          |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|---------------------|-------|--------------|------------|----------------------|-----------|---------------|-----------------------|---------------------------------|------------------|----------|---------------------|----------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Good.               | Fair. |              |            | Poor.                | Minutes.  | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.          | Foreign. | Married.            | Single.  | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  |                     |       |              |            |                      |           |               |                       |                                 |                  |          |                     |          |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| St. Ignace—Cont'd:                           |                     |       |              |            |                      |           |               |                       |                                 |                  |          |                     |          |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Furniture stores.....                        | 1                   | 1     | 10           | M.         | 1                    | 1         |               | 1                     |                                 |                  | 1        |                     |          |               |                |           | 1                    |              |                    | 1             |                   |                       |                           |              |                | 1                          |
| General stores.....                          | 1                   | 1     | 10           | F. }<br>M. | 2                    | 2         |               | 2                     | 1                               | 1                | 1        |                     | 1        |               |                | 1         |                      |              |                    |               |                   |                       | 1                         |              |                |                            |
| Groceries.....                               | 2                   | 2     | 11           | M.         | 2                    | 2         |               | 2                     |                                 |                  | 2        |                     |          |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Hardware.....                                | 1                   | 1     | 10           | M.         | 2                    | 2         |               | 2                     |                                 | 1                | 1        |                     | 1        | 1             |                |           | 1                    |              |                    |               |                   |                       |                           |              |                |                            |
| Harness.....                                 | 1                   | 1     | 10           | M.         | 2                    | 2         |               |                       |                                 |                  | 2        |                     |          | 2             |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Hotels, boarding houses and restaurants..... | 3                   | 3     | 14           | F. }<br>M. | 8<br>10              | 8<br>10   |               | 1<br>3                | 7<br>1                          | 2<br>3           | 6<br>7   |                     | 1<br>1   |               |                | 8<br>9    |                      |              | 8<br>10            |               |                   |                       |                           |              |                | 8                          |
| Jewelry.....                                 | 1                   | 1     | 10           | M.         | 4                    | 4         |               | 4                     |                                 |                  | 4        |                     |          | 1             |                | 2         |                      |              | 4                  |               |                   |                       |                           |              |                | 4                          |
| Laundries.....                               | 1                   | 1     | 12           | F. }<br>M. | 2<br>1               | 2         |               | 2<br>1                |                                 | 1<br>1           | 1<br>1   |                     |          |               |                | 2         |                      |              | 1<br>1             |               |                   |                       |                           |              |                | 2                          |
| Meat markets.....                            | 1                   | 1     | 12           | M.         | 2                    | 1         |               | 2                     |                                 | 1                | 1        |                     |          |               | 1              |           |                      |              | 2                  |               |                   |                       |                           |              |                | 2                          |
| Plastering.....                              | 1                   | 1     | 10           | M.         | 1                    | 1         |               | 1                     |                                 | 1                |          |                     |          |               |                |           |                      | 1            |                    | 1             |                   |                       |                           |              |                | 1                          |
| Total, city.....                             | 39                  | 39    | 10 38        | F. }<br>M. | 16<br>167            | 16<br>165 | 2             | 8<br>84               | 8<br>83                         | 3<br>68          | 13<br>99 |                     | 34<br>34 | 39            |                | 14<br>83  | 2<br>6               |              | 1<br>166           | 16<br>166     |                   |                       |                           | 2<br>167     | 16<br>167      |                            |
| St. JOSEPH:                                  |                     |       |              |            |                      |           |               |                       |                                 |                  |          |                     |          |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Bankers and brokers.....                     | 1                   | 1     | 10           | M.         | 2                    | 2         |               | 2                     |                                 | 1                | 1        |                     | 1        | 1             |                | 1         |                      | 1            |                    | 1             |                   |                       |                           |              |                | 2                          |
| Barber shops and bath-rooms.....             | 2                   | 2     | 14           | M.         | 2                    | 2         |               | 2                     |                                 | 1                | 1        |                     | 1        | 1             |                | 1         |                      | 2            |                    |               |                   |                       |                           |              |                | 2                          |
| Blacksmithing and horseshoeing.....          | 2                   | 2     | 10           | M.         | 4                    | 4         |               | 3                     | 1                               | 2                | 2        |                     | 3        |               |                | 3         |                      | 4            |                    |               |                   |                       |                           |              |                | 4                          |

|  |    |    |    |            |            |            |     |     |    |    |    |    |    |    |    |    |     |
|--|----|----|----|------------|------------|------------|-----|-----|----|----|----|----|----|----|----|----|-----|
| Boots and shoes.....                         | 3  | 2  | 1  | 13         | 12         | M.         | 5   | 5   | 2  | 3  | 3  | 2  | 1  | 2  | 2  | 5  | 5   |
| Bottling works.....                          | 1  | 1  | 10 | M.         | 1          | 1          | 1   | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Building stone and monuments.....            | 1  | 1  | 10 | M.         | 3          | 3          | 2   | 1   | 2  | 1  | 2  | 1  | 2  | 1  | 3  | 3  | 3   |
| Drugs.....                                   | 3  | 3  | 14 | 15         | M.         | 4          | 4   | 3   | 1  | 1  | 3  | 1  | 3  | 1  | 2  | 1  | 4   |
| Dry goods.....                               | 2  | 2  | 14 | F. }<br>M. | 1          | 1          | 1   | 1   | 1  | 1  | 5  | 1  | 4  | 1  | 1  | 1  | 1   |
| Furniture stores.....                        | 2  | 2  | 11 | 20         | M.         | 3          | 3   | 2   | 1  | 2  | 1  | 1  | 1  | 1  | 2  | 2  | 2   |
| Groceries.....                               | 4  | 4  | 13 | 30         | F. }<br>M. | 2          | 2   | 2   | 17 | 9  | 2  | 8  | 4  | 2  | 3  | 4  | 2   |
| Hardware, stoves and tinware.....            | 1  | 1  | 14 | M.         | 1          | 1          | 1   | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Hotels, boarding houses and restaurants..... | 4  | 2  | 1  | 13         | F. }<br>M. | 7          | 7   | 6   | 1  | 1  | 7  | 5  | 7  | 5  | 4  | 4  | 2   |
| Jewelry stores.....                          | 2  | 2  | 13 | M.         | 4          | 4          | 2   | 2   | 1  | 3  | 1  | 3  | 1  | 2  | 1  | 4  | 4   |
| Livery stables.....                          | 1  | 1  | 14 | M.         | 2          | 2          | 2   | 2   | 1  | 1  | 1  | 1  | 1  | 1  | 2  | 2  | 2   |
| Meat markets.....                            | 2  | 2  | 12 | 45         | M.         | 4          | 4   | 2   | 2  | 1  | 3  | 1  | 2  | 1  | 1  | 1  | 4   |
| Millinery.....                               | 1  | 1  | 9  | F.         | 1          | 1          | 1   | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Notions and fancy goods.....                 | 1  | 1  | 10 | F. }<br>M. | 1          | 1          | 1   | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Postoffice.....                              | 1  | 1  | 14 | F. }<br>M. | 1          | 1          | 1   | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
| Railroading.....                             | 1  | 1  | 10 | M.         | 4          | 4          | 3   | 1   | 3  | 1  | 3  | 1  | 2  | 1  | 4  | 4  | 4   |
| Tailoring.....                               | 1  | 1  | 12 | F. }<br>M. | 1          | 1          | 3   | 1   | 3  | 1  | 1  | 2  | 1  | 1  | 1  | 1  | 1   |
| Teas, coffee and spices.....                 | 1  | 1  | 10 | M.         | 3          | 2          | 1   | 3   | 1  | 1  | 2  | 2  | 2  | 1  | 3  | 3  | 3   |
| Telegraph & telephone companies.....         | 2  | 2  | 14 | M.         | 2          | 2          | 2   | 2   | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
| Vessels and tugs.....                        | 2  | 2  | 14 | 18         | F. }<br>M. | 1          | 1   | 32  | 11 | 10 | 33 | 1  | 43 | 1  | 14 | 43 | 1   |
| Total, town.....                             | 41 | 37 | 3  | 1          | 13         | F. }<br>M. | 15  | 15  | 11 | 2  | 3  | 12 | 12 | 1  | 8  | 5  | 10  |
|  |    |    |    |            |            |            | 119 | 119 | 90 | 29 | 44 | 76 | 19 | 69 | 16 | 88 | 115 |

TABLE No. 88.—Continued.

| Class of Business.                            | Number in each Class. |       |       | Sanitary Condition. |          | H's per Day.  |                        | Sex.                            |         | Number of Employes. |          |         | Nativity.     |                | Civil Condition. |                      | Employes     |                    |               |                   |                       |                           |              |                |                            |   |
|---|-----------------------|-------|-------|---------------------|----------|---------------|------------------------|---------------------------------|---------|---------------------|----------|---------|---------------|----------------|------------------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|---|
|   | Good.                 | Fair. | Poor. | Hours.              | Minutes. | Total Number. | (Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.            | Married. | Single. | Owning Homes. | Renting Homes. | Boarding.        | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |   |
|   |                       |       |       |                     |          |               |                        |                                 |         |                     |          |         |               |                |                  |                      |              |                    |               |                   |                       |                           |              |                |                            |   |
| St. Louis:                                    |                       |       |       |                     |          |               |                        |                                 |         |                     |          |         |               |                |                  |                      |              |                    |               |                   |                       |                           |              |                |                            |   |
| Banking .....                                 | 2                     | 1     | 8     | ..                  | ..       | M.            | 4                      | 4                               | 4       | ..                  | 3        | 1       | 2             | ..             | ..               | 1                    | 1            | ..                 | 4             | 4                 | ..                    | ..                        | ..           | ..             | 4                          | 4 |
| Blacksmithing .....                           | 4                     | 4     | 10    | ..                  | ..       | M.            | 8                      | 7                               | 7       | 1                   | 6        | 2       | 2             | 4              | 1                | 1                    | 6            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 6                          | 6 |
| Boots and shoes .....                         | 3                     | 3     | 13 30 | ..                  | ..       | M.            | 3                      | 3                               | 2       | 1                   | 2        | 1       | 1             | 1              | 1                | 1                    | 1            | 1                  | 1             | 1                 | ..                    | ..                        | ..           | ..             | 2                          | 2 |
| Bottling works .....                          | 2                     | 2     | 14 48 | ..                  | ..       | M.            | 5                      | 5                               | 3       | 2                   | 4        | 1       | 3             | 2              | ..               | ..                   | 5            | ..                 | ..            | ..                | 2                     | ..                        | ..           | ..             | 5                          | 5 |
| Clothing stores .....                         | 1                     | 1     | 15    | ..                  | ..       | M.            | 2                      | 2                               | 2       | ..                  | 1        | 1       | ..            | 1              | ..               | ..                   | 2            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 2                          | 2 |
| Contractors, carpenters and builders .....    | 3                     | 1     | 10    | ..                  | ..       | M.            | 24                     | 24                              | 22      | 2                   | 21       | 3       | 12            | 5              | 5                | ..                   | 24           | ..                 | ..            | ..                | ..                    | ..                        | ..           | 24             | 24                         |   |
| Drying .....                                  | 1                     | ..    | 12    | ..                  | ..       | M.            | 1                      | 1                               | 1       | ..                  | ..       | 1       | ..            | ..             | ..               | 1                    | 1            | 1                  | 1             | 1                 | ..                    | ..                        | ..           | 1              | 1                          |   |
| Drugs .....                                   | 5                     | 5     | 13 48 | ..                  | ..       | F.            | 1                      | 1                               | 3       | 1                   | 1        | 1       | 1             | ..             | 1                | 2                    | 4            | 1                  | 1             | ..                | 1                     | ..                        | ..           | 1              | 1                          |   |
| Dry goods .....                               | 2                     | 2     | 12 51 | ..                  | ..       | F.            | 5                      | 5                               | 5       | ..                  | ..       | 5       | 1             | 1              | 3                | 1                    | 5            | ..                 | ..            | ..                | 1                     | ..                        | ..           | ..             | 5                          | 5 |
| Express companies .....                       | 1                     | 1     | 15    | ..                  | ..       | M.            | 2                      | 2                               | 2       | ..                  | 1        | 1       | 1             | ..             | ..               | 1                    | 2            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 2                          | 2 |
| General stores .....                          | 5                     | 5     | 13 46 | ..                  | ..       | F.            | 5                      | 5                               | 5       | ..                  | 3        | 3       | 1             | 1              | 3                | 2                    | 5            | ..                 | ..            | ..                | 1                     | ..                        | ..           | ..             | 5                          | 5 |
| Groceries .....                               | 9                     | 9     | 14 35 | ..                  | ..       | F.            | 11                     | 9                               | 10      | 1                   | 7        | 4       | 2             | 3              | 4                | 2                    | 9            | ..                 | ..            | ..                | 1                     | ..                        | ..           | 11             | 11                         |   |
| Hardware .....                                | 3                     | 3     | 13 30 | ..                  | ..       | M.            | 5                      | 5                               | 5       | ..                  | 3        | 2       | 2             | ..             | ..               | 2                    | 5            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 5                          | 5 |
| Harness .....                                 | 2                     | 2     | 10    | ..                  | ..       | M.            | 2                      | 2                               | 2       | ..                  | 2        | ..      | ..            | 2              | ..               | ..                   | 2            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 2                          | 2 |
| Hotels, boarding-houses and restaurants ..... | 7                     | 6     | 10 34 | ..                  | ..       | F.            | 33                     | 33                              | 14      | ..                  | 1        | 22      | ..            | 1              | 33               | ..                   | 33           | ..                 | ..            | ..                | ..                    | ..                        | ..           | 33             | 33                         |   |
| Ice dealers .....                             | 1                     | ..    | 10    | ..                  | ..       | M.            | 2                      | 2                               | 2       | ..                  | ..       | 2       | ..            | ..             | ..               | 2                    | 2            | ..                 | ..            | ..                | ..                    | ..                        | ..           | ..             | 2                          | 2 |

|  |    |    |     |             |           |           |   |         |         |          |         |          |         |           |         |           |
|--|----|----|-----|-------------|-----------|-----------|---|---------|---------|----------|---------|----------|---------|-----------|---------|-----------|
| Jewelry stores.....                              | 1  | 1  | 16  | M.          | 1         | 1         | 1 | 1       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 1         |
| Livery stables.....                              | 2  | 2  | 12  | 30 M.       | 4         | 4         | 4 | 4       | 2       | 2        | 2       | 2        | 2       | 2         | 2       | 4         |
| Meat markets.....                                | 1  | 1  | 12  | M.          | 2         | 2         | 1 | 1       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 2         |
| Millinery.....                                   | 2  | 2  | 10  | F.          | 6         | 6         | 3 | 3       | —       | 6        | 6       | 6        | 6       | 6         | 6       | 6         |
| News depots.....                                 | 1  | 1  | 8   | F.          | 1         | 1         | 1 | 1       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 1         |
| Painting.....                                    | 1  | 1  | 10  | M.          | 1         | 1         | 1 | 1       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 1         |
| Postoffice.....                                  | 1  | 1  | 15  | M.          | 2         | 1         | 1 | 2       | —       | 2        | 2       | 2        | 2       | 2         | 2       | 2         |
| Printing and publishing.....                     | 3  | 3  | 10  | M.          | 6         | 6         | 4 | 2       | 2       | 2        | 2       | 2        | 2       | 2         | 2       | 6         |
| Railroading.....                                 | 1  | 1  | —   | F.<br>M.    | 2<br>50   | 2         | 2 | —       | 2       | 2        | 2       | 2        | 2       | 2         | 2       | 50        |
| Real estate, insurance<br>and other offices..... | 1  | 1  | 10  | M.          | 1         | 1         | — | —       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 1         |
| Sewing machine repair<br>shops.....              | 1  | 1  | 10  | M.          | 2         | 2         | 2 | 2       | 2       | 2        | 2       | 2        | 2       | 2         | 2       | 2         |
| Tailoring.....                                   | 2  | 2  | 10  | F.          | 2         | 2         | 2 | 2       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 2         |
| Total, town.....                                 | 68 | 60 | 111 | 37 F.<br>M. | 56<br>161 | 56<br>155 | 6 | 4<br>12 | 2<br>65 | 41<br>37 | 2<br>30 | 46<br>31 | 6<br>17 | 50<br>102 | 2<br>57 | 56<br>158 |
| <b>TAWAS CITY:</b>                               |    |    |     |             |           |           |   |         |         |          |         |          |         |           |         |           |
| Blacksmithing.....                               | 1  | 1  | 10  | M.          | 2         | 2         | — | 2       | 1       | 1        | 1       | 1        | 1       | 2         | 1       | 2         |
| Boots and shoes.....                             | 1  | 1  | 12  | M.          | 1         | 1         | 1 | 1       | 1       | 1        | 1       | 1        | 1       | 1         | 1       | 1         |
| General stores.....                              | 3  | 3  | 12  | M.          | 9         | 9         | — | 2       | 5       | 4        | 1       | 4        | 3       | 1         | 9       | 9         |
| Groceries.....                                   | 1  | 1  | 12  | M.          | 1         | 1         | 1 | 1       | —       | 1        | 1       | —        | 1       | 1         | 1       | 1         |
| Hotels.....                                      | 1  | 1  | 12  | M.          | 2         | 2         | — | 2       | —       | 2        | 2       | 2        | 2       | —         | —       | —         |
| Printing and publishing.....                     | 1  | 1  | 12  | M.          | 2         | 2         | — | 1       | 1       | 1        | 1       | 1        | 1       | 2         | 1       | 2         |
| Lumber yards.....                                | 1  | 1  | 10  | M.          | 7         | 7         | — | 3       | 2       | 5        | 2       | 5        | 5       | —         | 7       | 7         |
| Total, town.....                                 | 9  | 7  | 111 | 15 F.<br>M. | 24        | 23        | 1 | 9       | 10      | 14       | 4       | 6        | 12      | 5         | 17      | 22        |

TABLE NO. 83.—Continued.

| Class of Business.                           | Number in each Class. |       | Sanitary Condition. |          | Hr's per Day.    | Sex.          |                       | Number of Employés.             |         |          | Nativity. |         | Civil Condition. |                | Number of Employés |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
|--|-----------------------|-------|---------------------|----------|------------------|---------------|-----------------------|---------------------------------|---------|----------|-----------|---------|------------------|----------------|--------------------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|--|
|  | Good.                 | Fair. | Poor.               | Minutes. |                  | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign. | Married.  | Single. | Owning Homes.    | Renting Homes. | Boarding.          | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |  |
|  |                       |       |                     |          |                  |               |                       |                                 |         |          |           |         |                  |                |                    |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
| TRAVERSE CITY:                               |                       |       |                     |          |                  |               |                       |                                 |         |          |           |         |                  |                |                    |                      |              |                    |               |                   |                       |                           |              |                |                            |  |
| Bakeries.....                                | 1                     | 1     |                     | 10 32    | { F. }<br>{ M. } |               | 1                     | 1                               | 1       | 1        |           | 1       |                  |                |                    |                      | 1            |                    | 1             |                   |                       |                           |              | 1              | 1                          |  |
| Barber shops and bath rooms.....             | 2                     | 2     |                     | 12       | M.               |               | 2                     | 2                               | 2       | 1        | 1         | 1       |                  | 1              |                    |                      | 2            |                    |               |                   |                       | 1                         |              | 2              |                            |  |
| Books and stationery.....                    | 1                     | 1     |                     | 12       | M.               |               | 2                     | 1                               | 1       | 1        | 1         |         |                  |                |                    |                      | 2            |                    |               |                   |                       | 1                         |              | 2              |                            |  |
| Boots and shoes.....                         | 4                     | 2     | 1                   | 10       | M.               |               | 6                     | 5                               | 1       | 1        | 5         | 4       | 1                | 3              |                    |                      | 6            |                    |               |                   |                       |                           |              | 6              |                            |  |
| City laborers and water works employés.....  | 1                     | 1     |                     | 12       | M.               |               | 2                     | 2                               | 2       |          | 2         |         | 2                |                |                    | 2                    |              |                    |               |                   |                       |                           | 2            | 2              |                            |  |
| Clothing.....                                | 2                     | 2     |                     | 10       | { F. }<br>{ M. } |               | 8                     | 8                               | 8       | 2        | 3         |         | 2                | 8              |                    |                      | 2            |                    |               |                   | 2                     |                           |              | 8              |                            |  |
| Contractors, carpenters and builders.....    | 3                     | 1     |                     | 10       | M.               |               | 93                    | 93                              |         | 60       | 33        | 51      | 42               | 17             | 20                 | 55                   | 1            | 19                 |               | 74                |                       | 42                        | 4            |                | 93                         |  |
| Draying.....                                 | 2                     | 2     |                     | 12       | M.               |               | 5                     | 5                               | 5       | 5        |           | 2       | 3                | 1              | 1                  | 3                    |              | 5                  |               |                   |                       |                           |              | 5              |                            |  |
| Drugs.....                                   | 2                     | 2     |                     | 12       | M.               |               | 2                     | 2                               | 2       |          | 2         |         | 1                |                |                    | 1                    | 2            |                    |               |                   |                       |                           | 2            | 2              |                            |  |
| Dry goods.....                               | 4                     | 2     | 1                   | 11 8     | { F. }<br>{ M. } |               | 4                     | 4                               | 4       | 2        | 2         | 1       | 3                | 1              | 1                  | 1                    | 1            | 3                  |               | 1                 |                       |                           | 1            | 4              |                            |  |
| General stores.....                          | 2                     | 2     |                     | 10 50    | { F. }<br>{ M. } |               | 6                     | 4                               | 2       | 5        | 1         | 1       | 5                | 1              | 22                 | 3                    | 2            | 6                  |               |                   | 3                     | 1                         |              | 6              |                            |  |
| Groceries.....                               | 5                     | 4     | 1                   | 12       | M.               |               | 42                    | 41                              | 1       | 32       | 10        | 18      | 24               | 2              | 6                  | 10                   | 4            | 42                 |               |                   | 20                    | 11                        |              | 42             |                            |  |
| Hardware, stoves and tinware.....            | 2                     | 2     |                     | 10       | M.               |               | 8                     | 8                               | 8       | 8        |           | 7       | 1                | 4              | 4                  |                      | 5            | 11                 |               |                   |                       |                           | 4            | 12             |                            |  |
| Harness.....                                 | 1                     | 1     |                     | 10       | M.               |               | 4                     | 3                               | 1       | 3        | 1         | 1       | 3                | 1              | 1                  | 2                    |              | 8                  |               |                   |                       |                           | 1            | 8              |                            |  |
| Hotels, boarding houses and restaurants..... | 7                     | 3     | 2                   | 1        | { F. }<br>{ M. } |               | 40                    | 40                              |         | 21       | 19        | 1       | 39               |                |                    | 40                   |              | 22                 |               | 18                |                       | 2                         | 5            | 40             |                            |  |
| Ice dealers.....                             | 1                     |       |                     | 10       | M.               |               | 2                     | 2                               | 2       | 2        |           | 1       | 1                | 3              |                    | 13                   |              | 6                  |               | 10                |                       |                           | 4            | 16             |                            |  |
| Livery stables.....                          | 2                     | 1     |                     | 1 12     | M.               |               | 14                    | 14                              |         | 12       | 2         | 7       | 7                | 5              | 3                  | 6                    |              | 2                  |               |                   |                       |                           | 1            | 2              |                            |  |

|  |    |    |            |           |           |          |           |          |           |          |         |           |         |         |           |
|--|----|----|------------|-----------|-----------|----------|-----------|----------|-----------|----------|---------|-----------|---------|---------|-----------|
| Masons.....                                      | 3  | 10 | M.         | 10        | 10        | 8        | 2         | 7        | 3         | 6        | 2       | 2         | 10      | 3       | 10        |
| Meat markets.....                                | 2  | 2  | M.         | 10        | 12        | 10       | 2         | 7        | 5         | 3        | 5       | 3         | 1       | 4       | 12        |
| Painting, paper-hang-<br>ing and decorating..... | 1  | 10 | M.         | 6         | 6         | 6        | 4         | 4        | 2         | 2        | 2       | 2         | 6       | 6       | 6         |
| Printing and publish-<br>ing.....                | 3  | 2  | { F.<br>M. | 5<br>8    | 5<br>8    | 5<br>8   | 1         | 1        | 5         | 2        | 1       | 5         | 1       | 2       | 5         |
| Railroading.....                                 | 1  | 1  | { F.<br>M. | 2<br>4    | 2<br>4    | 3        | 2         | 1        | 1         | 1        | 1       | 2         | 2       | 2       | 2         |
| Telegraph companies.....                         | 1  | 1  | { F.<br>M. | 1<br>1    | 1<br>1    | 1        | 1         | 1        | 1         | 1        | 1       | 1         | 1       | 1       | 1         |
| Vessels and tugs.....                            | 1  | 1  | M.         | 59        | 59        | 32       | 27        | 18       | 41        | 22       | 37      | 59        | 18      | 7       | 59        |
| Total, city.....                                 | 54 | 36 | { F.<br>M. | 61<br>326 | 59<br>318 | 2<br>221 | 24<br>100 | 5<br>143 | 56<br>173 | 2<br>104 | 1<br>50 | 55<br>159 | 3<br>13 | 5<br>84 | 61<br>326 |
| WEST BAY CITY:                                   |    |    |            |           |           |          |           |          |           |          |         |           |         |         |           |
| Bankers and brokers.....                         | 1  | 1  | M.         | 2         | 2         | 2        | 1         | 1        | 1         | 1        | 1       | 1         | 1       | 2       | 2         |
| Barber shops and bath<br>rooms.....              | 1  | 1  | M.         | 3         | 2         | 1        | 1         | 1        | 2         | 1        | 1       | 1         | 1       | 3       | 3         |
| Blacksmithing and<br>horsehoeing.....            | 3  | 3  | M.         | 9         | 9         | 7        | 2         | 5        | 3         | 3        | 2       | 3         | 7       | 2       | 9         |
| Boots and shoes.....                             | 1  | 1  | M.         | 2         | 2         | 1        | 1         | 2        | 1         | 2        | 2       | 1         | 2       | 2       | 2         |
| Clothing stores.....                             | 1  | 1  | M.         | 1         | 1         | 1        | 1         | 1        | 1         | 1        | 1       | 1         | 1       | 1       | 1         |
| Coal and wood yards.....                         | 1  | 1  | M.         | 5         | 5         | 5        | 4         | 4        | 1         | 2        | 2       | 1         | 5       | 5       | 5         |
| Drugs.....                                       | 4  | 3  | { F.<br>M. | 7<br>3    | 7<br>3    | 4        | 3         | 2        | 5         | 1        | 1       | 4         | 1       | 7       | 7         |
| Dry goods.....                                   | 3  | 3  | { F.<br>M. | 3<br>9    | 3<br>9    | 3<br>6   | 3         | 5        | 3         | 1        | 5       | 1         | 2       | 2       | 3         |
| Furniture stores.....                            | 1  | 1  | M.         | 1         | 1         | 1        | 1         | 1        | 1         | 1        | 1       | 1         | 1       | 1       | 1         |
| General stores.....                              | 2  | 1  | { F.<br>M. | 3<br>11   | 3<br>11   | 2<br>6   | 1<br>5    | 5        | 3<br>6    | 2<br>2   | 2<br>2  | 2<br>3    | 1<br>4  | 2<br>11 | 3<br>11   |
| Groceries.....                                   | 7  | 7  | M.         | 12        | 9         | 7        | 5         | 5        | 7         | 1        | 4       | 3         | 4       | 1       | 12        |
| Hardware, stoves and<br>tinware.....             | 2  | 2  | M.         | 11        | 11        | 10       | 1         | 6        | 5         | 5        | 2       | 2         | 2       | 1       | 11        |
| Harness.....                                     | 1  | 1  | M.         | 4         | 4         | 2        | 2         | 3        | 1         | 1        | 2       | 1         | 4       | 4       | 4         |
| Hotels, board'g houses<br>and restaurants.....   | 3  | 3  | { F.<br>M. | 12<br>6   | 12<br>6   | 8<br>3   | 4<br>3    | 1<br>1   | 11<br>5   | 1        | 1       | 12<br>6   | 6<br>3  | 1       | 12<br>6   |



TABLE No. 33.—Continued.

| Class of Business.                  | Number in each Class. |       | Sanitary Condition. |        | Hrs per Day. |         | Number of Employes. |                       |                                 | Nativity. |          |          | Civil Condition. |               | Number of Employés |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|-------------------------------------|-----------------------|-------|---------------------|--------|--------------|---------|---------------------|-----------------------|---------------------------------|-----------|----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|                                     | Good.                 | Fair. | Poor.               | Hours. | Minutes.     | Sex.    | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.   | Foreign. | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|                                     |                       |       |                     |        |              |         |                     |                       |                                 |           |          |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| W. BAY CITY—Con.:                   |                       |       |                     |        |              |         |                     |                       |                                 |           |          |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Ice dealers.....                    | 1                     | 1     | 10                  |        |              | M.      | 4                   | 4                     |                                 | 3         | 1        | 3        | 1                | 1             | 2                  | 1         | 1                    |              |                    | 4             |                   |                       |                           |              |                | 4                          |
| Livery stables.....                 | 2                     | 2     | 12                  |        |              | M.      | 3                   | 3                     |                                 | 2         | 1        |          | 3                |               |                    | 3         |                      | 3            |                    |               |                   |                       |                           |              | 3              |                            |
| Tea, coffee and spices.             | 1                     | 1     | 15                  |        |              | M.      | 1                   | 1                     | 1                               | 1         |          |          | 1                |               |                    |           | 1                    | 1            |                    |               |                   |                       |                           |              | 1              |                            |
| Vessels and tugs.....               | 1                     | 1     | 6                   |        |              | M.      | 40                  | 40                    |                                 | 25        | 15       | 6        | 34               | 2             | 4                  | 34        |                      | 40           |                    |               |                   | 5                     |                           |              | 40             |                            |
| Total, city.....                    | 36                    | 34    | 1 10 18             |        |              | F. { M. | 18 131              | 136 5                 |                                 | 13 82     | 5 49     | 1 49     | 17 81            | 21            | 28                 | 15 65     | 3 16                 | 9 108        | 2                  | 6 12          |                   |                       |                           | 13           | 1              | 18 131                     |
| WHITEHALL:                          |                       |       |                     |        |              |         |                     |                       |                                 |           |          |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Blacksmithing and horseshoeing..... | 1                     | 1     | 10                  |        |              | M.      | 1                   | 1                     |                                 | 1         |          | 1        |                  |               | 1                  |           |                      | 1            |                    |               |                   |                       |                           |              | 1              |                            |
| Boots and shoes.....                | 2                     | 2     | 12 30               |        |              | M.      | 2                   | 2                     |                                 | 1         | 1        | 1        | 1                | 1             |                    | 1         |                      | 2            |                    |               |                   |                       |                           |              | 2              |                            |
| Dressmaking.....                    | 1                     | 1     | 10                  |        |              | F.      | 4                   | 4                     |                                 | 1         | 3        |          | 4                |               |                    | 2         | 2                    | 4            |                    |               |                   |                       |                           |              | 4              |                            |
| Drugs.....                          | 3                     | 3     | 15                  |        |              | M.      | 3                   | 3                     |                                 | 3         |          | 2        | 1                |               | 2                  |           | 1                    | 1            | 1                  | 2             |                   | 2                     |                           | 1            | 3              |                            |
| Dry goods.....                      | 3                     | 3     | 15                  |        |              | F. { M. | 3 3                 | 3 3                   |                                 | 3         |          | 3        | 3                | 3             |                    | 2         | 1                    | 3            |                    |               |                   | 1                     |                           | 1            | 3              |                            |
| Furniture and under-taking.....     | 1                     | 1     | 12                  |        |              | M.      | 1                   | 1                     |                                 | 1         |          |          | 1                |               |                    |           | 1                    | 1            |                    |               |                   |                       |                           |              | 1              |                            |
| General store.....                  | 1                     | 1     | 10                  |        |              | M.      | 10                  | 10                    |                                 | 5         | 5        | 9        | 1                | 3             | 6                  |           | 1                    | 10           |                    |               |                   | 4                     |                           |              | 10             |                            |
| Groceries.....                      | 3                     | 3     | 15                  |        |              | M.      | 5                   | 5                     |                                 | 2         | 3        | 3        | 2                | 2             | 1                  | 1         | 1                    | 3            |                    | 2             |                   |                       |                           | 1            | 5              |                            |
| Hardware, stoves and tinware.....   | 3                     | 3     | 13 45               |        |              | M.      | 4                   | 4                     |                                 | 3         | 1        |          | 4                |               |                    | 3         | 1                    | 3            |                    | 1             |                   |                       |                           | 2            | 4              |                            |
| Harness.....                        | 1                     | 1     | 10                  |        |              | M.      | 1                   | 1                     |                                 |           |          | 1        |                  | 1             |                    |           |                      | 1            |                    |               |                   |                       |                           | 1            | 1              |                            |

|  |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |
|--|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|
| Hotels, board'g houses,<br>and restaurants.....  | 3  | 3  | 12 | 16 | F. | 9  | 9  | 1 | 2  | 9  | 2  | 4  | 5  | 2  | 2  | 9  | 2  |
| Insurance, real estate<br>and other offices..... | 1  | 1  | 12 | 12 | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 2  | 1  | 1  | 1  | 1  |
| Meat markets.....                                | 1  | 1  | 15 | 15 | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Printing and publish-<br>ing.....                | 1  | 1  | 10 | 10 | F. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Railroading.....                                 | 1  | 1  | 14 | 14 | M. | 2  | 2  | 1 | 1  | 1  | 1  | 2  | 2  | 2  | 2  | 2  | 2  |
| Tailoring.....                                   | 1  | 1  | 13 | 13 | M. | 6  | 6  | 1 | 5  | 3  | 2  | 1  | 6  | 1  | 1  | 6  | 6  |
| Total, town.....                                 | 27 | 27 | 11 | 44 | F. | 17 | 17 | 1 | 14 | 3  | 17 | 14 | 3  | 13 | 3  | 17 | 17 |
|  |    |    |    |    | M. | 43 | 42 | 1 | 23 | 20 | 12 | 13 | 5  | 35 | 11 | 43 | 43 |
| WHITE PIGEON:                                    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |
| Dry goods.....                                   | 1  | 1  | 15 | 15 | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Groceries.....                                   | 2  | 2  | 14 | 30 | M. | 2  | 2  | 1 | 2  | 1  | 1  | 1  | 1  | 2  | 2  | 2  | 2  |
| General stores.....                              | 1  | 1  | 15 | 15 | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Harness.....                                     | 2  | 2  | 13 | 13 | M. | 4  | 4  | 3 | 4  | 3  | 1  | 3  | 1  | 1  | 2  | 4  | 4  |
| Hotels.....                                      | 2  | 1  | 15 | 15 | F. | 10 | 10 | 3 | 10 | 3  | 7  | 10 | 3  | 3  | 7  | 10 | 10 |
|  |    |    |    |    | M. | 5  | 5  | 2 | 5  | 2  | 3  | 5  | 1  | 4  | 4  | 5  | 5  |
| Lumber.....                                      | 1  | 1  | 8  | 8  | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Livery stables.....                              | 1  | 1  | 15 | 15 | M. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Total, town.....                                 | 10 | 7  | 3  | 14 | F. | 10 | 10 | 3 | 10 | 3  | 7  | 10 | 3  | 3  | 7  | 10 | 10 |
|  |    |    |    |    | M. | 15 | 15 | 8 | 15 | 8  | 7  | 5  | 4  | 8  | 12 | 15 | 15 |
| WYANDOTTE:                                       |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |
| Lumber yards.....                                | 1  | 1  | 10 | 10 | F. | 16 | 16 | 4 | 12 | 6  | 10 | 5  | 16 | 16 | 16 | 16 | 16 |
|  |    |    |    |    | M. |    |    |   |    |    |    |    |    |    |    |    |    |
| YPSILANTI:                                       |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |
| Bakeries.....                                    | 3  | 2  | 14 | 14 | M. | 2  | 2  | 1 | 1  | 2  | 1  | 2  | 3  | 3  | 1  | 1  | 1  |
| Barber shops and<br>bath rooms.....              | 3  | 2  | 13 | 24 | F. | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
|  |    |    |    |    | M. | 4  | 4  | 1 | 4  | 1  | 3  | 1  | 4  | 4  | 4  | 4  | 4  |

TABLE No. 88.—Continued.

| Class of Business.                         | Number in each Class. |       | H's per Condition. Day. |        | Sex. | Number of Employes. |               |                       | Nativity.                       |         | Civil Condition. |          | Number of Employés |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|--|-----------------------|-------|-------------------------|--------|------|---------------------|---------------|-----------------------|---------------------------------|---------|------------------|----------|--------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|  | Good.                 | Fair. | Poor.                   | Hours. |      | Minutes.            | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.         | Married. | Single.            | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|  |                       |       |                         |        |      |                     |               |                       |                                 |         |                  |          |                    |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| YPSILANTI—Cont'd:                          |                       |       |                         |        |      |                     |               |                       |                                 |         |                  |          |                    |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Blacksmithing and horseshoeing.....        | 6                     | 6     | 10                      | 10     | M.   | 15                  | 15            |                       | 10                              | 5       | 9                | 6        | 7                  | 2             | 2              | 4         | 15                   |              |                    |               | 5                 |                       |                           | 15           |                |                            |
| Books and stationery.....                  | 2                     | 2     | 12 40                   |        | F. { | 2                   | 1             | 1                     | 2                               |         |                  | 2        |                    |               |                |           | 2                    | 2            |                    |               |                   |                       |                           |              |                |                            |
|  |                       |       |                         |        | M. { | 4                   | 3             | 1                     | 4                               |         | 1                | 3        |                    | 1             |                | 3         | 4                    |              |                    |               |                   |                       |                           |              |                |                            |
| Boots and shoes.....                       | 4                     | 4     | 12                      |        | F. { | 1                   | 1             |                       | 1                               |         | 1                | 1        | 1                  | 1             | 1              | 1         | 1                    | 6            |                    | 1             |                   |                       |                           |              |                |                            |
| Building stone and monuments.....          | 1                     | 1     | 10                      |        | M.   | 8                   | 8             |                       | 5                               | 1       | 5                |          | 3                  | 1             | 3              | 1         | 3                    | 1            |                    |               |                   |                       |                           |              |                |                            |
| City laborers.....                         | 1                     |       | 10                      |        | M.   | 6                   | 6             |                       |                                 | 6       | 5                | 1        | 4                  | 1             | 1              | 1         | 1                    |              | 6                  |               |                   |                       |                           |              |                |                            |
| Clothing stores.....                       | 3                     | 3     | 11 6                    |        | F. { | 8                   | 8             |                       | 6                               | 2       | 1                | 7        | 2                  | 3             | 2              | 1         | 8                    |              |                    | 1             | 1                 |                       |                           |              |                |                            |
| Contractors, carpenters and builders.....  | 1                     |       | 10                      |        | M.   | 2                   | 2             |                       | 2                               |         | 1                | 1        |                    | 1             | 1              | 1         | 2                    |              |                    |               | 3                 |                       |                           |              |                |                            |
| Drugs.....                                 | 5                     | 5     | 13 33                   |        | F. { | 3                   | 3             | 1                     | 3                               |         |                  | 3        |                    | 1             |                | 3         | 3                    | 3            |                    |               |                   |                       |                           |              |                |                            |
|  |                       |       |                         |        | M. { | 6                   | 5             | 1                     | 6                               |         |                  | 3        |                    |               |                |           | 6                    | 6            |                    |               |                   |                       |                           |              |                |                            |
| Dry goods.....                             | 6                     | 6     | 13 25                   |        | F. { | 6                   | 6             |                       | 6                               |         |                  | 6        | 2                  | 5             | 2              | 4         | 5                    |              |                    |               | 1                 |                       |                           |              |                |                            |
|  |                       |       |                         |        | M. { | 13                  | 13            |                       | 13                              |         | 5                | 8        | 2                  | 5             | 4              | 2         | 11                   |              |                    |               | 4                 |                       |                           |              |                |                            |
| Flour, feed and grain.....                 | 2                     | 2     | 15                      |        | M.   | 2                   | 2             |                       | 2                               |         |                  | 2        |                    | 1             | 1              | 1         | 1                    |              | 1                  |               | 1                 |                       |                           |              |                |                            |
| Fruit, confectionery and canned goods..... | 2                     | 2     | 14                      |        | F.   | 3                   | 3             |                       | 3                               |         |                  | 3        |                    |               | 3              |           | 3                    |              |                    |               |                   |                       |                           |              |                |                            |
| Furniture.....                             | 1                     | 1     | 10                      |        | M.   | 4                   | 3             | 1                     | 3                               | 1       | 1                | 3        |                    | 1             |                | 3         |                      | 3            |                    |               |                   |                       |                           |              |                |                            |
| Gas companies.....                         | 1                     | 1     | 12                      |        | M.   | 3                   | 3             |                       | 2                               | 1       | 2                | 1        | 1                  | 1             |                | 3         |                      | 4            |                    |               |                   |                       |                           |              |                |                            |
| Groceries.....                             | 11                    | 7     | 3 14 15                 |        | F. { | 1                   | 1             |                       |                                 |         | 7                | 13       | 2                  | 7             | 4              | 9         | 1                    | 1            | 1                  |               |                   |                       |                           |              |                |                            |
|  |                       |       |                         |        | M. { | 22                  | 20            | 2                     | 20                              |         |                  |          |                    |               |                |           | 22                   | 22           |                    |               | 4                 |                       |                           |              |                |                            |
| Hardware, stoves and tinware.....          | 3                     | 3     | 12                      |        | M.   | 10                  | 10            |                       | 9                               | 1       | 3                | 7        |                    | 8             | 4              | 8         | 10                   |              |                    |               | 1                 |                       |                           |              |                |                            |

|  |    |    |           |            |           |           |           |         |         |           |         |         |          |          |         |           |
|--|----|----|-----------|------------|-----------|-----------|-----------|---------|---------|-----------|---------|---------|----------|----------|---------|-----------|
| Harness.....                                     | 3  | 3  | 10        | M.         | 8         | 6         | 4         | 4       | 5       | 3         | 2       | 4       | 2        | 8        | 2       | 8         |
| Hotels, board'g houses<br>and restaurants.....   | 7  | 2  | 2 14 30   | { F.<br>M. | 14<br>12  | 14<br>12  | 13<br>12  | 1       | 2       | 7<br>10   | 1       | 2       | 14<br>9  | 14<br>12 | 1       | 14<br>12  |
| Jewelry stores.....                              | 2  | 1  | 1 13 30   | M.         | 4         | 4         | 4         | 4       | 1       | 3         | 1       | 1       | 1        | 4        | 2       | 4         |
| Livery stables.....                              | 2  | 1  | 1 15 42   | M.         | 7         | 7         | 7         | 7       | 1       | 7         | 6       | 1       | 6        | 7        | 1       | 7         |
| Lumber yards.....                                | 1  | 1  | 10        | M.         | 2         | 2         | 2         | 2       | 1       | 1         | 1       | 1       | 1        | 2        | 1       | 2         |
| Markets.....                                     | 1  | 1  | 10        | M.         | 3         | 1         | 3         | 3       | 1       | 2         | 1       | 1       | 2        | 3        | 1       | 3         |
| Meat markets.....                                | 3  | 1  | 2 14 20   | M.         | 12        | 11        | 11        | 11      | 6       | 6         | 3       | 3       | 5        | 12       | 2       | 12        |
| Millinery.....                                   | 2  | 2  | 11 30     | F.         | 4         | 4         | 3         | 3       | 2       | 3         | 1       | 1       | 3        | 4        | 1       | 4         |
| Notions and fancy<br>goods.....                  | 1  | 1  | 12        | M.         | 3         | 3         | 3         | 3       | 2       | 1         | 1       | 1       | 1        | 3        | 1       | 3         |
| Painting, paper-hang-<br>ing and decorating..... | 2  | 1  | 1 10      | M.         | 7         | 7         | 6         | 6       | 5       | 2         | 1       | 3       | 2        | 7        | 1       | 7         |
| Photographing.....                               | 2  | 2  | 10        | M.         | 2         | 2         | 2         | 2       | 2       | 2         | 2       | 1       | 1        | 2        | 1       | 2         |
| Printing and publish-<br>ing.....                | 2  | 2  | 10        | { F.<br>M. | 2<br>12   | 2<br>12   | 2<br>11   | 1       | 4       | 2<br>8    | 1<br>2  | 1<br>2  | 1<br>6   | 2<br>12  | 1<br>2  | 2<br>12   |
| Railroading.....                                 | 2  | 2  | 10        | M.         | 6         | 6         | 6         | 6       | 3       | 3         | 2       | 2       | 2        | 6        | 6       | 6         |
| Sanitariums.....                                 | 1  | 1  | 15        | { F.<br>M. | 2<br>5    | 2<br>5    | 2<br>5    | 2       | 2       | 1         | 2       | 2       | 1        | 2        | 2       | 2         |
| Sewing machines.....                             | 1  | 1  | 13        | M.         | 2         | 2         | 2         | 2       | 2       | 1         | 1       | 1       | 1        | 2        | 1       | 2         |
| Sporting goods.....                              | 1  | 1  | 1 12      | M.         | 1         | 1         | 1         | 1       | 1       | 1         | 1       | 1       | 1        | 1        | 1       | 1         |
| Undertaking.....                                 | 1  | 1  | 10        | M.         | 2         | 2         | 1         | 1       | 1       | 1         | 2       | 2       | 2        | 2        | 2       | 2         |
| Total, city.....                                 | 89 | 69 | 8 8 12 35 | { F.<br>M. | 47<br>206 | 43<br>197 | 42<br>170 | 3<br>25 | 4<br>90 | 34<br>106 | 4<br>35 | 7<br>61 | 22<br>64 | 14<br>46 | 4<br>30 | 45<br>193 |

In Table No. 33 we have shown the result in full, except wages, of the special canvass of the business houses, other than manufacturing, in the cities, villages and towns given on page 277. Table No. 34 shows the same matter by totals of each place canvassed, and Table No. 35 gives the same by classes of business or occupations.

Employés in saloons or hotel bars are not included in any portion of the State canvass.

The report of the sanitary condition of the business houses reported is not as favorable as the report of the manufacturing establishments. The number reported as being in "*poor*" condition is 81, or over one and one-third per cent. The number reported in "*fair*" condition is 253, or about 18 per cent, while the number reported as in "*good*" sanitary condition is 4,139 out of 4,591, the total number reported.

The average number of hours reported as a day's work in the 51 cities and towns is 10 hours and 40 minutes.

In these tables there are reported 26,052 employés, of whom 21,757 are males and 4,295 females; 20,882 males and 4,184 females are over 16 years of age, leaving 875 males and 111 females 16 years of age and under. Of this number the city of Detroit reports 312 males and 44 females, leaving but 563 males and 67 females reported in the other 50 places canvassed. As a large proportion of the employés shown in these tables are clerks in stores, it is somewhat remarkable that but about  $3\frac{1}{2}$  per cent of the whole number are but 16 years of age or under.

Unlike the showing in the tables of manufacturing industries, the native born employed in business interests, as shown by the reports, largely exceed the foreign born. Of native born there are reported 12,293 males and 2,274 females; of foreign born 6,990 males and 1,107 females, or a total excess of native over foreign born of 6,940. Is it true that the young men of our State seek positions in the stores and counting rooms rather than the work of skilled mechanical industries? If so, is it because of a desire for easier methods of earning a livelihood, and thinking of the present without regard to the future? These questions may well give rise to serious thought.

Those reported as married are 9,420 males and 344 females; single, 10,174 males and 3,704 females, a little less than two-thirds of the whole number being single. Three thousand seven hundred and thirty-seven males and 75 females are reported as owning homes; 4,978 males and 143 females rent homes; 6,910 males and 2,424 females are boarding, while 3,430 males and 1,403 females still reside with their parents. The proportion of married persons owning their homes is a trifle over 39 per cent.

In the payment of wages 14,104 males and 2,993 females are reported as paid weekly; 1,682 males and 347 females are paid semi-monthly; 4,772 males and 822 females paid monthly, while but 243 males and 57 females are reported as being paid at irregular times, or having no regular pay day. The same remarks made in referring to the tables of manufacturing indus-

tries, with regard to justice to and convenience of the employé in payment of wages, is applicable in this instance; all should be paid weekly.

These tables show a larger percentage of employés having savings laid by than do the tables of manufacturing industries. Employés reported as having money in bank number 1,584 males and 62 females; those having money drawing interest number 486 males and 62 females, making a total of 2,295, or about 8 $\frac{1}{4}$  per cent of all employés having something saved for the future. The showing is not a bright one.

But 30 male and 7 female apprentices are reported.

In the payment of wages 21,505 males and 4,189 females are reported as receiving their full pay in cash, while but 42 males and 9 females are reported as receiving part of their pay in store orders. This is a very gratifying showing, but it will not reach perfection until reports from the whole State will show the store-order column blank.

In Table No. 36 we show the wages paid to each employé over 16 years of age and the average wages paid in each class of business.

Table 37 shows the number of adults working for each given rate of wage; the total number whose wages are reported and the average wages paid in the business houses in all the cities and towns canvassed.

Table No. 38 gives the wages of employés 16 years of age and under, the number receiving each given wage, the total number whose wages are reported and the average wages paid to children.

In ascertaining the wages paid it was found that in quite a number of instances, more particularly in hotels, board and lodging was furnished the employé in addition to money wages. In all such instances the wages have been reduced to a money basis by placing the price of board throughout the State at \$3.50 per week and adding the same to the money wages paid; thus, if the employé received, per canvasser's report, \$1.50 per week and board, it is shown in the tables as receiving \$5.00 per week. Of this class there was reported to be 1,811 males and 2,493 females.

The highest wages paid by any business is paid to employés in wholesale liquor stores, \$20.08 per week. As only four such houses, employing 20 men, were reported, these figures can hardly be taken as covering employés in this branch of business throughout the State. The next highest wages paid is to employés of banks; 246 employés are reported with wages averaging \$19.55 per week. Of carpenters and contractors' employés there is reported 1,872, the largest number reported by any one business, with an average wage of \$11.78 per week. The average weekly wage paid throughout the State to male employés, in business other than manufacturing, over 16 years of age as reported, is \$10.84+; female employés, \$5.96+; male employés 16 years of age and under, \$3.37+; female, \$3.33+. The reader must remember that the 51 cities and towns covered by this report are located in 30 counties scattered through all parts of the State, so that the reports may be taken as a fair showing of the condition of the State at large.

TABLE No. 34.—Showing the totals by Cities and Towns of the result of the Special Canvass of Business Interests, other than Manufacturing.

| Cities, Towns and Counties. | Number in each Place. | Sanitary Condition. |       | Hr's per Day. | Sex. | Number of Employees. |        |          | Natality.     |                       | Civil Condition.                |         | Number of Employees |          |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |       |     |     |        |     |     |     |
|-----------------------------|-----------------------|---------------------|-------|---------------|------|----------------------|--------|----------|---------------|-----------------------|---------------------------------|---------|---------------------|----------|---------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|-------|-----|-----|--------|-----|-----|-----|
|                             |                       | Good.               | Fair. |               |      | Poor.                | Hours. | Minutes. | Total Number. | Over 16 years of Age. | Sixteen years of age and under. | Native. | Foreign.            | Married. | Single. | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money as Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |       |     |     |        |     |     |     |
|                             |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     |          |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |       |     |     |        |     |     |     |
| Total                       | 4591                  | 4139                | 253   | 81            | 10   | 40                   |        |          |               |                       |                                 |         |                     | 28,052   | 25,006  | 986           | 15,037         | 8,067     | 9,764                | 13,877       | 3,812              | 5,121         | 9,334             | 4,833                 | 17,097                    | 2,029        | 5,594          | 300                        | 1,747 | 548 | 37  | 25,664 | 51  |     |     |
|                             |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 4,295    | 4,184   | 111           | 2,744          | 1,107     | 314                  | 3,704        | 75                 | 143           | 2,424             | 1,403                 | 2,963                     | 347          | 822            | 57                         | 163   | 62  | 7   | 4,189  | 9   |     |     |
|                             |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 21,757   | 20,982  | 875           | 12,263         | 6,900     | 9,430                | 10,174       | 2,737              | 4,978         | 6,910             | 3,430                 | 14,104                    | 1,682        | 4,772          | 243                        | 1,584 | 496 | 30  | 21,506 | 42  |     |     |
| Adrian.                     | 126                   | 123                 | 3     | 11            | 2    |                      |        |          |               |                       |                                 |         |                     | 110      | 108     | 2             | 89             | 21        | 9                    | 101          | 6                  | 4             | 51                | 49                    | 80                        | 25           | 5              | 15                         | 6     | 1   | 110 | ...    | 4   |     |     |
| Lenawee Co.                 |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 410      | 332     | 18            | 347            | 61        | 208                  | 200          | 105                | 102           | 111               | 88                    | 272                       | 6            | 130            | 7                          | 61    | 21  | 405 | ...    | ... |     |     |
| Albion.                     | 75                    | 68                  | 6     | 1             | 10   | 25                   |        |          |               |                       |                                 |         |                     | 48       | 48      |               | 36             | 8         | 36                   | 8            | 36                 | 3             | 27                | 14                    | 46                        | 2            | 41             | ...                        | 1     | 1   | 1   | 48     | ... | ... |     |
| Calhoun Co.                 |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 227      | 221     | 6             | 168            | 57        | 140                  | 85           | 45                 | 59            | 47                | 42                    | 180                       | 5            | ...            | ...                        | 18    | ... | ... | 227    | ... | ... |     |
| Alpena.                     | 97                    | 96                  | ...   | 11            | 14   |                      |        |          |               |                       |                                 |         |                     | 60       | 69      |               | 20             | 49        | 2                    | 67           | ...                | 49            | 20                | 65                    | 3                         | 1            | ...            | 11                         | 8     | ... | 69  | ...    | 2   |     |     |
| Alpena Co.                  |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 394      | 387     | 7             | 194            | 199       | 172                  | 222          | 114                | 55            | 187               | 37                    | 201                       | 163          | 26             | ...                        | ...   | ... | 396 | ...    | ... |     |     |
| Ann Arbor.                  | 104                   | 92                  | 2     | 10            | 20   |                      |        |          |               |                       |                                 |         |                     | 15       | 15      |               | 10             | 5         | 14                   | 14           | 4                  | ...           | 4                 | 7                     | 14                        | 10           | 23             | ...                        | 102   | 13  | ... | 15     | ... | ... |     |
| Washtenaw Co.               |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 520      | 415     | 14            | 293            | 216       | 195                  | 269          | 148                | 134           | 145               | 96                    | 466                       | 10           | 23             | ...                        | ...   | ... | 525 | ...    | ... |     |     |
| An Sadle and Oscoda.        | 29                    | 27                  | ...   | 1             | 11   | 16                   |        |          |               |                       |                                 |         |                     | 16       | 15      | 1             | 13             | 3         | ...                  | ...          | ...                | ...           | ...               | ...                   | ...                       | ...          | ...            | ...                        | 10    | 101 | 11  | 3      | 154 | ... | ... |
| Iosco Co.                   |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 155      | 153     | 2             | 64             | 86        | 58                   | 85           | 44                 | 15            | 81                | 15                    | 44                        | ...          | ...            | ...                        | ...   | ... | ... | 16     | ... | ... |     |
| Bay City.                   | 190                   | 158                 | 29    | 1             | 10   | 51                   |        |          |               |                       |                                 |         |                     | 189      | 187     | 2             | 137            | 47        | 6                    | 181          | 1                  | 155           | 137               | 49                    | 124                       | 9            | 52             | ...                        | 15    | 1   | 2   | 185    | ... | ... |     |
| Bay Co.                     |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 794      | 780     | 31            | 543            | 238       | 334                  | 452          | 163                | 175           | 340               | 121                   | 453                       | 112          | 230            | ...                        | 162   | 23  | 10  | 794    | ... | ... |     |
| Big Rapids.                 | 116                   | 106                 | 7     | 1             | 11   | 14                   |        |          |               |                       |                                 |         |                     | 107      | 106     | 1             | 45             | 37        | 16                   | 83           | 3                  | 2             | 78                | 24                    | 70                        | 36           | ...            | 36                         | ...   | 4   | 2   | 104    | ... | ... |     |
| Mecosta Co.                 |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 236      | 230     | 6             | 168            | 105       | 148                  | 133          | 92                 | 60            | 101               | 38                    | 157                       | 11           | 128            | ...                        | 82    | 7   | ... | 296    | ... | ... |     |
| Blissfield.                 | 18                    | 18                  | ...   | 12            | 38   |                      |        |          |               |                       |                                 |         |                     | 31       | 31      |               | 31             | ...       | 10                   | 4            | ...                | ...           | 3                 | 1                     | 4                         | ...          | ...            | ...                        | ...   | ... | ... | 4      | ... | ... |     |
| Lenawee Co.                 |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 31       | 31      |               | 31             | ...       | 10                   | 4            | ...                | ...           | 3                 | 1                     | 4                         | ...          | ...            | ...                        | ...   | ... | ... | 31     | ... | ... |     |
| Bronson.                    | 16                    | 14                  | 2     | 12            | 22   |                      |        |          |               |                       |                                 |         |                     | 8        | 8       |               | 8              | ...       | 1                    | 7            | 1                  | ...           | 5                 | 2                     | 6                         | ...          | ...            | ...                        | ...   | ... | ... | 8      | ... | ... |     |
| Branch Co.                  |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 21       | 21      |               | 20             | 1         | 8                    | 13           | 4                  | 4             | 9                 | 4                     | 15                        | ...          | ...            | ...                        | ...   | ... | ... | 21     | ... | ... |     |
| Buchanan.                   | 20                    | 20                  | ...   | 12            | 17   |                      |        |          |               |                       |                                 |         |                     | 19       | 19      |               | 18             | ...       | 14                   | 15           | 3                  | 2             | 14                | 14                    | 19                        | ...          | ...            | ...                        | ...   | ... | ... | 6      | 2   | 19  | ... |
| Gerrien Co.                 |                       |                     |       |               |      |                      |        |          |               |                       |                                 |         |                     | 41       | 41      |               | 39             | 2         | 24                   | 17           | 12                 | 12            | 17                | ...                   | 36                        | ...          | ...            | ...                        | ...   | ... | 1   | 4      | 41  | ... |     |

|                              |     |     |       |         |    |       |       |     |       |       |       |       |     |       |       |       |       |     |     |       |
|------------------------------|-----|-----|-------|---------|----|-------|-------|-----|-------|-------|-------|-------|-----|-------|-------|-------|-------|-----|-----|-------|
| Calumet,<br>Houghton Co.     | 39  | 39  | 11 14 | F.      | 21 | 166   | 21    | 89  | 21    | 76    | 34    | 62    | 54  | 18    | 3     | 4     | 21    | 162 | 19  | 21    |
| Coldwater,<br>Branch Co.     | 87  | 84  | 3     | 12 32   | F. | 52    | 50    | 2   | 37    | 12    | 10    | 39    | 1   | 3     | 39    | 8     | 40    | 11  | 2   | 49    |
|                              |     |     |       |         | M. | 225   | 219   | 4   | 187   | 20    | 100   | 107   | 54  | 37    | 17    | 206   | 17    | 4   | 3   | 223   |
| Detroit,<br>Wayne Co.        | 836 | 782 | 30    | 9 10 16 | F. | 1,203 | 1,249 | 44  | 717   | 305   | 71    | 1,141 | 7   | 29    | 383   | 714   | 745   | 304 | 45  | 2     |
|                              |     |     |       |         | M. | 6,763 | 6,453 | 312 | 2,833 | 2,183 | 2,700 | 2,920 | 707 | 1,536 | 1,414 | 1,315 | 4,508 | 934 | 344 | 89    |
| Dowagiac,<br>Cass Co.        | 51  | 51  | 11    | 9       | F. | 37    | 37    | --- | 35    | ---   | 7     | 30    | --- | 5     | 21    | 9     | 37    | 1   | 3   | 37    |
|                              |     |     |       |         | M. | 84    | 84    | --- | 72    | 9     | 45    | 34    | 14  | 29    | 28    | 10    | 81    | 1   | 2   | 83    |
| East Saginaw,<br>Saginaw Co. | 260 | 155 | 85    | 20 25   | F. | 280   | 298   | 12  | 189   | 82    | 14    | 262   | 2   | 7     | 202   | 62    | 209   | 21  | 7   | 243   |
|                              |     |     |       |         | M. | 1,133 | 1,050 | 83  | 734   | 965   | 483   | 648   | 173 | 272   | 451   | 217   | 969   | 21  | 104 | 19    |
| East Tawas,<br>Iosco Co.     | 26  | 17  | 5     | 1 10 15 | F. | 8     | 8     | --- | 4     | 4     | ---   | 8     | --- | ---   | 4     | 4     | 8     | --- | 4   | 1     |
|                              |     |     |       |         | M. | 170   | 169   | 1   | 19    | 21    | 14    | 26    | 8   | 8     | 18    | 4     | 20    | --- | 9   | 7     |
| Escanaba,<br>Delta Co.       | 49  | 49  | ---   | 13 53   | F. | 29    | 29    | --- | 15    | 13    | 2     | 22    | --- | 2     | 22    | 5     | 7     | --- | 1   | 29    |
|                              |     |     |       |         | M. | 93    | 90    | 8   | 44    | 43    | 20    | 50    | 11  | 14    | 56    | 11    | 31    | 2   | 6   | 92    |
| Franklin,<br>Houghton Co.    | 2   | 2   | ---   | 11 55   | F. | 13    | 13    | --- | 9     | 4     | 7     | 6     | 1   | 5     | 6     | 1     | ---   | --- | --- | 13    |
|                              |     |     |       |         | M. | 51    | 51    | --- | 30    | 20    | 3     | 48    | --- | ---   | 39    | 12    | 33    | --- | --- | 51    |
| Grand Haven,<br>Ottawa Co.   | 88  | 87  | 1     | 10 38   | F. | 314   | 299   | 15  | 119   | 191   | 195   | 110   | 152 | 41    | 57    | 54    | 102   | 4   | 2   | 314   |
|                              |     |     |       |         | M. | 538   | 519   | 19  | 373   | 132   | 38    | 429   | 8   | 29    | 375   | 123   | 389   | 9   | 4   | 538   |
| Grand Rapids,<br>Kent Co.    | 492 | 476 | ---   | 10 50   | F. | 3,035 | 2,940 | 95  | 1,922 | 768   | 1,428 | 1,180 | 582 | 869   | 1,127 | 300   | 1,962 | 149 | 49  | 31    |
|                              |     |     |       |         | M. | 25    | 23    | 2   | 16    | 9     | 3     | 22    | 1   | 2     | 15    | 7     | 2     | 6   | 21  | 6     |
| Hancock,<br>Houghton Co.     | 53  | 51  | 2     | 10 40   | F. | 216   | 209   | 7   | 109   | 107   | 79    | 130   | 34  | 51    | 103   | 28    | 13    | 9   | 152 | 172   |
|                              |     |     |       |         | M. | 3     | 3     | --- | 3     | ---   | ---   | 2     | --- | ---   | 2     | ---   | ---   | --- | --- | 25    |
| Hanover,<br>Jackson Co.      | 11  | 10  | 1     | 11 41   | F. | 11    | 11    | --- | 10    | 1     | 4     | 7     | 1   | 1     | 2     | 4     | 1     | --- | 5   | 7     |
|                              |     |     |       |         | M. | 8     | 7     | 1   | 8     | ---   | 1     | 3     | 1   | ---   | 3     | 4     | 8     | --- | --- | 8     |
| Harbor Springs,<br>Emmet Co. | 15  | 15  | ---   | 10      | F. | 29    | 25    | 4   | 29    | ---   | 19    | 7     | 11  | 7     | 9     | 2     | 29    | --- | 2   | 29    |
|                              |     |     |       |         | M. | 71    | 70    | 1   | 63    | 6     | 12    | 59    | 4   | 4     | 39    | 24    | 55    | --- | --- | 71    |
| Hillsdale,<br>Hillsdale Co.  | 82  | 72  | 9     | 11 6    | F. | 243   | 239   | 4   | 233   | 40    | 134   | 109   | 37  | 77    | 80    | 40    | 189   | --- | 21  | 22    |
|                              |     |     |       |         | M. | 155   | 151   | 4   | 79    | 76    | 77    | 78    | 54  | 33    | 13    | 5     | 19    | 1   | 18  | 9     |
| Holland,<br>Ottawa Co.       | 41  | 41  | ---   | 10 30   | F. | 20    | 19    | 1   | 9     | 11    | 1     | 19    | 2   | ---   | 13    | 5     | 19    | 1   | 32  | 15    |
|                              |     |     |       |         | M. | 23    | 19    | 4   | 16    | 7     | 5     | 15    | 2   | 2     | 11    | 8     | ---   | --- | --- | 5     |
| Houghton,<br>Houghton Co.    | 13  | 13  | ---   | 11 40   | F. | 23    | 19    | 4   | 16    | 7     | ---   | ---   | --- | ---   | ---   | ---   | ---   | --- | --- | 23    |
|                              |     |     |       |         | M. | 52    | 50    | 2   | 31    | 17    | 24    | 24    | 4   | 14    | 23    | 11    | 44    | --- | 1   | 2     |
| Howell,<br>Livingston Co.    | 38  | 36  | ---   | 11 54   | F. | 108   | 104   | 4   | 72    | 33    | 55    | 48    | 27  | 27    | 36    | 18    | 95    | 2   | 6   | 50    |
|                              |     |     |       |         | M. | 224   | 223   | 73  | 135   | 61    | 26    | 194   | 11  | 8     | 127   | 72    | 205   | 2   | 22  | 3     |
| Jackson,<br>Jackson Co.      | 278 | 269 | 1     | 10 54   | F. | 1,280 | 1,207 | 73  | 886   | 396   | 661   | 559   | 259 | 348   | 453   | 231   | 1,147 | 77  | 160 | 254   |
|                              |     |     |       |         | M. | ---   | ---   | --- | ---   | ---   | ---   | ---   | --- | ---   | ---   | ---   | ---   | --- | --- | 1,273 |



TABLE No. 84.—Continued.

| Cities, Towns and Counties.                   | Sanitary Condition. |       | Hrs per Day. |               | Sex. | Number of Employes.   |                                 |         | Nativity. |          | Civil Condition. |               | Number of Employes |           |                      |              |                    |               |                   |                       |                           |              |                |                            |     |
|---|---------------------|-------|--------------|---------------|------|-----------------------|---------------------------------|---------|-----------|----------|------------------|---------------|--------------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|-----|
|   | Good.               | Fair. | Poor.        | Total Number. |      | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.  | Married. | Single.          | Owning Homes. | Renting Homes.     | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |     |
|   |                     |       |              |               |      |                       |                                 |         |           |          |                  |               |                    |           |                      |              |                    |               |                   |                       |                           |              |                |                            |     |
| Lakeside, Muskegon Co.....                    | 8                   | 7     | 1            | 14            | 36   | M.                    | 2                               | 18      | 16        | 2        | 1                | 7             | 11                 | 3         | 4                    | 7            | 1                  | 1             | 1                 | 1                     | 1                         | 1            | 1              | 2                          |     |
| Lansing, Ingham Co.....                       | 159                 | 144   | 10           | 26            | M.   | 164                   | 527                             | 516     | 11        | 99       | 57               | 18            | 140                | 1         | 5                    | 81           | 19                 | 116           | 41                | 34                    | 41                        | 1            | 158            | 14                         |     |
| Lowell, Kent Co.....                          | 45                  | 45    | 11           | 45            | M.   | 24                    | 88                              | 86      | 2         | 20       | 4                | 2             | 22                 | 17        | 20                   | 27           | 23                 | 24            | 17                | 17                    | 1                         | 1            | 24             | 4                          |     |
| Mason, Ingham Co.....                         | 46                  | 46    | 12           | 11            | M.   | 17                    | 77                              | 75      | 2         | 17       | 1                | 1             | 17                 | 19        | 17                   | 11           | 7                  | 18            | 17                | 17                    | 3                         | 1            | 18             | 77                         |     |
| Midland, Midland Co.....                      | 22                  | 21    | 12           | 25            | M.   | 16                    | 45                              | 45      |           | 14       | 2                | 17            | 15                 | 1         | 8                    | 11           | 5                  | 6             | 6                 | 11                    | 5                         | 1            | 16             | 44                         |     |
| Monroe, Monroe Co.....                        | 82                  | 81    | 11           | 34            | M.   | 23                    | 199                             | 191     | 8         | 174      | 15               | 94            | 103                | 2         | 36                   | 9            | 12                 | 16            | 6                 | 6                     | 1                         | 1            | 22             | 1                          |     |
| Montague, Muskegon Co.....                    | 19                  | 18    | 10           | 47            | M.   | 16                    | 107                             | 96      | 11        | 10       | 6                | 39            | 68                 | 27        | 12                   | 15           | 1                  | 16            | 28                | 75                    | 4                         | 10           | 3              | 16                         | 107 |
| Muskegon and North Muskegon, Muskegon Co..... | 164                 | 95    | 24           | 28            | 13   | F.                    | 158                             | 151     | 7         | 106      | 41               | 15            | 129                |           | 2                    | 119          | 35                 | 140           | 9                 | 9                     | 14                        | 63           | 152            | 1                          |     |
| Niles, Berrien Co.....                        | 105                 | 104   | 11           | 21            | M.   | 62                    | 315                             | 312     | 3         | 50       | 10               | 8             | 52                 | 1         | 87                   | 43           | 17                 | 45            | 16                | 137                   | 26                        | 2            | 62             | 315                        |     |
| Port Huron, St. Clair Co.....                 | 147                 | 143   | 2            | 11            | 4    | F.                    | 139                             | 133     | 6         | 89       | 49               | 4             | 134                | 3         | 156                  | 101          | 27                 | 105           | 3                 | 23                    | 5                         | 2            | 128            | 601                        |     |
| Reed City, Osceola Co.....                    | 47                  | 30    | 16           | 12            | 11   | F.                    | 42                              | 66      |           | 27       | 15               | 4             | 38                 | 1         | 1                    | 37           | 3                  | 42            | 8                 | 8                     | 2                         | 2            | 42             | 70                         |     |
| Saginaw, Saginaw Co.....                      | 99                  | 95    | 4            | 11            | 34   | F.                    | 88                              | 88      | 11        | 71       | 17               | 7             | 81                 | 1         | 2                    | 71           | 14                 | 46            | 45                | 42                    | 1                         | 68           | 4              | 88                         | 674 |

|                                    |    |    |           |       |     |     |    |    |    |    |     |     |    |     |     |     |    |    |    |    |    |    |     |     |
|------------------------------------|----|----|-----------|-------|-----|-----|----|----|----|----|-----|-----|----|-----|-----|-----|----|----|----|----|----|----|-----|-----|
| Schoolcraft,<br>Houghton Co.       | 22 | 22 | 10 11     | F. M. | 397 | 383 | 14 | 6  | 3  | 3  | 181 | 248 | 4  | 28  | 100 | 244 | 6  | 5  | 3  | 92 | 23 | 1  | 6   | 397 |
| St. Ignace,<br>Mackinac Co.        | 39 | 39 | 10 38     | F. M. | 167 | 165 | 2  | 16 | 8  | 8  | 3   | 13  | 3  | 34  | 39  | 14  | 2  | 1  | 16 | 2  | 2  | 16 | 167 |     |
| St. Joseph,<br>Berrien Co.         | 41 | 37 | 3 1 13 6  | F. M. | 130 | 118 | 1  | 15 | 11 | 2  | 3   | 12  | 3  | 76  | 12  | 1   | 8  | 5  | 9  | 3  | 3  | 4  | 10  |     |
| St. Louis,<br>Gratiot Co.          | 68 | 60 | 1 11 37   | F. M. | 161 | 155 | 6  | 56 | 33 | 4  | 2   | 41  | 2  | 23  | 30  | 2   | 46 | 6  | 50 | 2  | 4  | 8  | 158 |     |
| Tawas City,<br>Iosco Co.           | 9  | 7  | 1 11 15   | F. M. | 24  | 23  | 1  | 23 | 15 | 9  | 10  | 14  | 4  | 4   | 6   | 12  | 2  | 5  | 17 | 1  | 1  | 4  | 22  |     |
| Traverse City,<br>G'd Traverse Co. | 54 | 36 | 5 4 10 32 | F. M. | 326 | 318 | 8  | 59 | 37 | 24 | 5   | 56  | 2  | 104 | 50  | 1   | 55 | 3  | 42 | 19 | 5  | 7  | 61  |     |
| West Bay City,<br>Bay Co.          | 36 | 34 | 1 1 10 18 | F. M. | 131 | 125 | 5  | 18 | 13 | 5  | 1   | 17  | 1  | 21  | 28  | 15  | 3  | 9  | 16 | 6  | 13 | 1  | 18  |     |
| Whitehall,<br>Muskegon Co.         | 27 | 27 | 11 44     | F. M. | 43  | 42  | 1  | 17 | 14 | 3  | 20  | 17  | 12 | 13  | 13  | 14  | 3  | 13 | 4  | 8  | 11 | 8  | 17  |     |
| White Pigeon,<br>St. Joseph Co.    | 10 | 7  | 3 14 23   | F. M. | 15  | 15  | 13 | 10 | 10 | 8  | 3   | 7   | 7  | 5   | 5   | 10  | 6  | 4  | 3  | 7  | 2  | 2  | 10  |     |
| Wyandotte,<br>Wayne Co.            | 1  | 1  | 10        | F. M. | 16  | 16  | 4  | 12 | 4  | 12 | 6   | 10  | 5  | 5   | 1   | 10  | 16 | 16 | 12 | 1  | 1  | 16 | 16  |     |
| Ypsilanti,<br>Washtenaw Co.        | 89 | 61 | 8 8 12 35 | F. M. | 206 | 197 | 9  | 43 | 42 | 3  | 4   | 31  | 4  | 35  | 61  | 22  | 14 | 46 | 4  | 7  | 4  | 4  | 45  |     |
|                                    |    |    |           |       |     |     |    |    |    |    |     |     |    |     |     |     |    |    |    |    |    |    | 196 |     |
|                                    |    |    |           |       |     |     |    |    |    |    |     |     |    |     |     |     |    |    |    |    |    |    | 11  |     |

TABLE NO. 35.—Showing the result of Special Canvass of the Business Interests (other than Manufacturing) of the 51 Cities, Villages and Towns named on page 277, by Class of Business or Occupation; Number of each class of Business reported; Sanitary condition; Average hours per day's work; Total Number of Male and Female Employes; Number over 16 years of age; Number 16 years of age and under; Nativity; Civil condition; Number owning and renting homes; Number boarding; Number living with parents; Number paid weekly, semi-monthly, monthly and irregularly; Number having savings in bank and at interest; Number of Apprentices in each business; Number paid all Cash and Number paid part in Store Orders.

| Class of Business.                 | Number in each Class. |       | Sanitary Condition. |               | Hrs per Day. | Sex. | Number of Employes.                  |                                 |                   | Nativity.                 |                         | Civil Condition.        |                           | Number of Employes    |                       |                         |                         |                           |                       |                       |                       |                           |                  |                           |                            |   |
|------------------------------------|-----------------------|-------|---------------------|---------------|--------------|------|--------------------------------------|---------------------------------|-------------------|---------------------------|-------------------------|-------------------------|---------------------------|-----------------------|-----------------------|-------------------------|-------------------------|---------------------------|-----------------------|-----------------------|-----------------------|---------------------------|------------------|---------------------------|----------------------------|---|
|                                    | Good.                 | Fair. | Poor.               | Total Number. |              |      | Over 16 years of age.                | Sixteen years of age and under. | Native.           | Foreign.                  | Married.                | Single.                 | Owning Homes.             | Renting Homes.        | Boarding.             | Living with Parents.    | Paid Weekly.            | Paid Semi-monthly.        | Paid Monthly.         | Paid Irregularly.     | Having Money in Bank. | Having Money at Interest. | Apprentices.     | Paid all Cash.            | Paid part in Store Orders. |   |
|                                    |                       |       |                     |               |              |      |                                      |                                 |                   |                           |                         |                         |                           |                       |                       |                         |                         |                           |                       |                       |                       |                           |                  |                           |                            |   |
| Total.....                         | 1591                  | 4130  | 253                 | 81            | 10           | 49   | (T. 26,082<br>F. 4,295<br>M. 21,787) | 25,066<br>4,184<br>20,882       | 986<br>111<br>875 | 15,037<br>2,744<br>12,293 | 8,097<br>1,107<br>6,990 | 9,764<br>3,704<br>9,420 | 13,878<br>3,704<br>10,174 | 3,812<br>375<br>3,737 | 5,121<br>143<br>4,978 | 9,334<br>2,424<br>6,910 | 4,833<br>1,403<br>3,440 | 17,097<br>2,993<br>14,104 | 2,029<br>347<br>1,682 | 5,594<br>822<br>4,772 | 300<br>57<br>243      | 1,747<br>163<br>1,584     | 548<br>62<br>486 | 25,094<br>4,189<br>21,905 | 51<br>9<br>42              |   |
| Agricultural imple-<br>ments.....  | 33                    | 33    | —                   | —             | —            | —    | 1<br>92                              | 1<br>92                         | —                 | 1<br>80                   | 7<br>—                  | 1<br>42                 | 31<br>—                   | 1<br>36               | 17<br>—               | 24<br>—                 | 9<br>—                  | 1<br>72                   | —                     | 20<br>—               | —                     | 5<br>—                    | 3<br>—           | —                         | 1<br>92                    |   |
| Advertising agencies.....          | 1                     | 1     | —                   | —             | 9            | —    | 1<br>3                               | 1<br>2                          | 1                 | 1<br>2                    | 1<br>—                  | 1<br>—                  | 3<br>—                    | —                     | —                     | —                       | 1<br>—                  | 1<br>—                    | —                     | —                     | 1<br>—                | —                         | —                | 1<br>—                    | —                          |   |
| Art stores.....                    | 3                     | 3     | —                   | —             | 9            | 36   | 2<br>2                               | 2<br>2                          | 1                 | 3<br>—                    | 1<br>—                  | 1<br>—                  | 2<br>—                    | 1<br>—                | —                     | 1<br>—                  | 1<br>—                  | 1<br>—                    | 2<br>—                | 3<br>—                | —                     | 1<br>—                    | 1<br>—           | —                         | 2<br>—                     |   |
| Artists' supplies.....             | 1                     | 1     | —                   | —             | 9            | —    | 2<br>—                               | 1<br>—                          | 1                 | 1<br>—                    | 1<br>—                  | 2<br>—                  | 2<br>—                    | 1<br>—                | —                     | 1<br>—                  | 1<br>—                  | 1<br>—                    | 2<br>—                | —                     | —                     | —                         | —                | —                         | 2<br>—                     |   |
| Architects.....                    | 4                     | 4     | —                   | —             | 8            | 10   | 11<br>—                              | 11<br>—                         | —                 | 8<br>—                    | 3<br>—                  | 4<br>—                  | 7<br>—                    | 1<br>—                | 3<br>—                | 2<br>—                  | 5<br>—                  | 1<br>—                    | 7<br>—                | —                     | 8<br>—                | —                         | —                | —                         | 11<br>—                    |   |
| Auction stores.....                | 3                     | 2     | —                   | —             | 10           | 40   | 6<br>—                               | 6<br>—                          | —                 | 6<br>—                    | —                       | 3<br>—                  | 3<br>—                    | —                     | 2<br>—                | 2<br>—                  | 2<br>—                  | 6<br>—                    | —                     | —                     | —                     | —                         | —                | —                         | 6<br>—                     |   |
| Bakeries.....                      | 64                    | 60    | 2                   | 2             | 11           | 15   | 44<br>172                            | 42<br>162                       | 2<br>10           | 23<br>83                  | 20<br>87                | 1<br>73                 | 41<br>84                  | —                     | 17<br>50              | 23<br>78                | 9<br>20                 | 9<br>163                  | 41<br>—               | 3<br>5                | —                     | 1<br>11                   | —                | 44<br>170                 | 1                          |   |
| Baking powder and<br>extracts..... | 3                     | 8     | —                   | —             | 9            | 18   | 10<br>13                             | 10<br>11                        | 2<br>—            | 9<br>5                    | 1<br>6                  | —                       | 10<br>11                  | 1<br>—                | —                     | —                       | 9<br>2                  | 10<br>6                   | —                     | —                     | —                     | 5<br>—                    | —                | —                         | 2<br>13                    |   |
| Barbers and brokers.....           | 76                    | 70    | 3                   | 1             | 8            | 12   | 3<br>251                             | 3<br>250                        | 1<br>—            | 3<br>206                  | 22<br>—                 | 111<br>—                | 122<br>—                  | 75<br>—               | 43<br>—               | 69<br>—                 | 62<br>—                 | 53<br>—                   | 8<br>—                | 172<br>—              | 2<br>1                | 88<br>—                   | 25<br>—          | —                         | 246<br>—                   | 8 |

|   |     |     |    |    |    |    |       |       |     |     |     |       |     |     |     |     |   |     |     |     |     |     |     |       |
|---|-----|-----|----|----|----|----|-------|-------|-----|-----|-----|-------|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-------|
| Barber shops and bath-rooms.....            | 127 | 110 | 13 | 13 | 51 | F. | 260   | 236   | 10  | 6   | 1   | 7     | 132 | 14  | 83  | 117 | 1 | 42  | 247 | 7   | 12  | 8   | 2   | 7     |
| Bill posters.....                           | 3   | 2   |    |    |    | M. | 14    | 14    |     | 13  | 1   | 4     | 10  |     | 4   |     |   | 10  | 14  |     |     |     |     | 14    |
| Blacksmithing and horseshoeing.....         | 167 | 157 | 9  | 10 |    | M. | 344   | 340   | 4   | 205 | 135 | 183   | 148 | 86  | 111 | 101 |   | 44  | 306 | 12  | 18  | 3   | 13  | 5     |
| Bleacheries.....                            | 1   | 1   |    |    |    | F. | 2     | 2     |     | 2   |     |       |     |     |     |     |   | 2   | 2   |     |     |     |     | 2     |
|   |     |     |    |    |    | M. | 1     | 1     |     | 1   |     |       |     |     |     |     |   |     |     |     |     |     |     | 1     |
| Books and stationery.....                   | 44  | 42  | 1  | 11 | 21 | F. | 23    | 21    | 2   | 20  | 1   |       | 22  |     | 1   | 8   |   | 14  | 22  |     | 1   | 2   | 1   | 21    |
|   |     |     |    |    |    | M. | 89    | 74    | 15  | 73  | 15  | 23    | 62  | 7   | 17  | 25  |   | 40  | 73  |     | 15  | 10  | 5   | 74    |
| Booming, rafting and driving logs.....      | 5   | 1   | 1  | 11 | 28 | F. | 708   | 698   | 10  | 13  | 6   | 3     | 16  |     | 18  |     |   | 1   |     |     | 18  |     |     | 19    |
|   |     |     |    |    |    | M. | 708   | 698   | 10  | 325 | 339 | 218   | 462 | 150 | 18  | 542 |   | 37  |     |     | 213 | 305 | 100 | 708   |
| Boots and shoes.....                        | 107 | 176 | 18 | 3  | 11 | 27 | F.    | 17    | 16  | 1   | 14  | 2     | 2   | 11  | 1   | 5   |   | 9   | 16  |     | 1   | 2   | 1   | 16    |
|   |     |     |    |    |    | M. | 438   | 418   | 18  | 262 | 143 | 211   | 208 | 110 | 93  | 104 |   | 107 | 412 | 2   | 15  | 4   | 47  | 416   |
| Bottling works.....                         | 17  | 16  | 1  | 11 | 7  | F. | 58    | 54    | 4   | 39  | 19  | 27    | 29  | 9   | 19  | 16  |   | 12  | 55  |     | 3   | 6   | 1   | 58    |
| Brick, tile and cement.....                 | 5   | 4   |    |    |    | M. | 45    | 45    |     | 11  | 34  | 39    | 6   | 8   | 31  | 3   |   | 3   | 45  |     |     |     |     | 45    |
| Bridge tenders.....                         | 1   | 1   |    |    |    | M. | 3     | 3     |     | 2   | 1   | 1     | 2   |     | 1   | 2   |   |     |     |     |     |     |     | 3     |
| Brooms and brushes.....                     | 1   | 1   |    |    |    | M. | 1     | 1     |     | 1   |     |       |     |     |     |     |   | 1   | 1   |     |     |     |     | 1     |
| Carpet cleaning.....                        | 3   | 3   |    |    |    | F. | 3     | 3     |     | 3   |     |       | 2   |     | 3   |     |   |     | 3   |     |     |     |     | 3     |
|   |     |     |    |    |    | M. | 8     | 8     |     | 7   | 1   | 5     | 3   |     | 6   | 1   |   | 1   | 8   |     |     |     |     | 8     |
| Carriages.....                              | 6   | 5   | 1  | 10 |    | M. | 31    | 30    | 1   | 19  | 12  | 13    | 12  | 15  | 3   | 5   |   | 8   | 31  |     |     |     |     | 31    |
| Cedar posts and ties.....                   | 3   | 3   |    |    |    | M. | 100   | 100   |     | 38  | 62  | 41    | 59  | 22  | 25  | 53  |   |     |     |     | 100 |     |     | 100   |
| Cigars and tobacco.....                     | 33  | 33  |    |    |    | F. | 78    | 73    | 5   | 1   | 2   | 43    | 32  | 15  | 29  | 14  |   | 2   | 3   |     | 15  | 1   |     | 3     |
| City laborers and water works employes..... | 23  | 20  | 2  | 10 | 12 | M. | 269   | 264   | 5   | 144 | 225 | 206   | 68  | 141 | 135 | 56  |   | 15  | 269 | 58  | 42  | 21  | 9   | 369   |
| Clothing.....                               | 129 | 124 | 3  | 1  | 11 | 3  | F.    | 117   | 117 | 46  | 20  | 14    | 91  | 14  | 8   | 28  |   | 21  | 117 |     |     |     |     | 112   |
|   |     |     |    |    |    | M. | 612   | 585   | 27  | 311 | 217 | 253   | 252 | 107 | 152 | 168 |   | 99  | 571 |     | 38  | 2   | 65  | 605   |
| Coal and wood yards.....                    | 68  | 66  | 1  | 9  | 58 | F. | 640   | 636   | 4   | 270 | 213 | 372   | 239 | 88  | 237 | 165 |   | 74  | 323 | 108 | 29  | 4   |     | 637   |
|   |     |     |    |    |    | M. | 640   | 636   | 4   | 5   |     |       | 5   |     |     | 3   |   | 2   | 5   |     |     |     |     | 3     |
| Commission and produce.....                 | 44  | 31  | 7  | 5  | 10 | 18 | F.    | 117   | 115 | 2   | 76  | 36    | 56  | 15  | 39  | 37  |   | 22  | 109 |     | 7   | 1   | 5   | 5     |
|   |     |     |    |    |    | M. | 117   | 115   | 2   | 76  | 36  | 56    | 57  | 15  | 39  | 37  |   | 22  | 109 |     |     |     |     | 117   |
| Contractors, carpenters and builders.....   | 94  | 77  | 2  | 10 |    | F. | 1,918 | 1,902 | 16  | 1   | 2   | 1,030 | 651 | 400 | 491 | 684 |   | 93  | 866 | 437 | 134 | 20  | 1   | 1,896 |
|   |     |     |    |    |    | M. | 1,918 | 1,902 | 16  | 695 | 1   | 946   | 651 | 400 | 491 | 684 |   | 93  | 866 | 437 | 134 | 20  | 1   | 1,896 |
| Costumers.....                              | 1   | 1   |    |    |    | M. | 1     | 1     |     | 1   |     |       |     |     |     |     |   | 1   | 1   |     |     |     |     | 1     |

TABLE NO. 35.—Continued.

| Class of Business.                 | Number in each Class. |       | Sanitary Condition. |          | H's per Day. | Sex.       | Number of Employes. |                       | Nativity.                       |            | Civil Condition. |           | Number of Employés |               |                |           |                      |              |                    |               |                   |                       |                           | Paid part in Store Orders. |              |                |
|------------------------------------|-----------------------|-------|---------------------|----------|--------------|------------|---------------------|-----------------------|---------------------------------|------------|------------------|-----------|--------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------------------|--------------|----------------|
|                                    | Good.                 | Poor. | Hours.              | Minutes. |              |            | Total Number.       | Over 16 years of age. | Sixteen years of age and under. | Native.    | Foreign.         | Married.  | Single.            | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. |                            | Apprentices. | Paid all Cash. |
|                                    |                       |       |                     |          |              |            |                     |                       |                                 |            |                  |           |                    |               |                |           |                      |              |                    |               |                   |                       |                           |                            |              |                |
| Crockery, stone and glassware..... | 22                    | 21    | .....               | 10 38    | .....        | { F.<br>M. | 25<br>96            | 25<br>86              | 10                              | 66         | 18               | 36        | 60                 | 1             | 24             | 1         | 9                    | 13           | 21                 | .....         | 4                 | .....                 | 1                         | 2                          | 25           | .....          |
| Dairies.....                       | 4                     | 4     | .....               | 12 30    | .....        | { F.<br>M. | 2<br>6              | 2<br>5                | 1                               | 4          | 2                | 1         | 5                  | .....         | .....          | 2         | 15                   | .....        | 2                  | .....         | 2                 | .....                 | .....                     | .....                      | 2            | .....          |
| Dentists' offices.....             | 7                     | 6     | 1                   | 9 13     | .....        | { F.<br>M. | 1<br>8              | 1<br>7                | 1                               | 1          | 1                | 1         | 6                  | .....         | .....          | 2         | 5                    | 1            | 1                  | .....         | 2                 | .....                 | .....                     | .....                      | 1            | .....          |
| Drying.....                        | 15                    | 12    | .....               | 10 25    | .....        | M.         | 53                  | 53                    | .....                           | 40         | 11               | 21        | 30                 | 4             | 18             | 26        | 4                    | 44           | .....              | 9             | .....             | 1                     | .....                     | 53                         | .....        |                |
| Dressed meats.....                 | 4                     | 4     | .....               | 10 39    | .....        | M.         | 14                  | 14                    | .....                           | 10         | 4                | 6         | 8                  | 6             | 1              | 5         | 1                    | 8            | .....              | 6             | .....             | 3                     | 1                         | 14                         | .....        |                |
| Dressmaking.....                   | 11                    | 10    | 1                   | 9 31     | .....        | F.         | 33                  | 32                    | 1                               | 28         | 5                | 2         | 31                 | .....         | 3              | 14        | 16                   | 33           | .....              | .....         | .....             | .....                 | 3                         | 33                         | .....        |                |
| Drugs.....                         | 218                   | 203   | 7                   | 4 12 23  | .....        | { F.<br>M. | 28<br>473           | 24<br>436             | 4                               | 21<br>357  | 3                | 5         | 24                 | 1             | 2              | 3         | 19                   | 26           | .....              | 4             | 52                | 6                     | 43                        | 18                         | 2            | .....          |
| Dry goods.....                     | 181                   | 172   | 6                   | 11 24    | .....        | { F.<br>M. | 461<br>821          | 451<br>736            | 10                              | 372<br>622 | 75<br>175        | 34<br>288 | 414<br>498         | 16            | 17             | 116       | 396                  | 431          | 2                  | 12            | .....             | 44                    | 15                        | 446                        | .....        |                |
| Dye works.....                     | 7                     | 7     | .....               | 10 5     | .....        | { F.<br>M. | 8<br>16             | 8<br>16               | .....                           | 3<br>9     | 5<br>7           | 1<br>9    | 7                  | 3             | 5              | 6         | 1                    | 16           | .....              | .....         | .....             | .....                 | .....                     | 8                          | .....        |                |
| Electric light Co's.....           | 7                     | 7     | .....               | 10 20    | .....        | M.         | 97                  | 97                    | .....                           | 64         | 33               | 64        | 33                 | 15            | 47             | 15        | 16                   | 86           | 11                 | .....         | .....             | 17                    | 2                         | 97                         | .....        |                |
| Engravers.....                     | 3                     | 3     | .....               | 8 41     | .....        | M.         | 13                  | 12                    | 1                               | 13         | .....            | 4         | 9                  | 2             | 2              | 1         | 7                    | 13           | .....              | .....         | .....             | .....                 | 2                         | 13                         | .....        |                |
| Express companies.....             | 16                    | 14    | .....               | 11 29    | .....        | { F.<br>M. | 1<br>251            | 1<br>251              | .....                           | 1<br>202   | 46               | 138       | 111                | 47            | 90             | 76        | 38                   | 4            | 1                  | 246           | .....             | 3                     | 1                         | 250                        | .....        |                |
| Feathers.....                      | 2                     | 2     | .....               | 10       | .....        | { F.<br>M. | 8<br>5              | 8<br>5                | .....                           | 2<br>2     | 3                | 3         | 8                  | .....         | 3              | 1         | 1                    | 8            | .....              | .....         | .....             | .....                 | .....                     | 8                          | .....        |                |
| Fire department.....               | 1                     | 1     | .....               | 12       | .....        | M.         | 28                  | 28                    | .....                           | 20         | 8                | 18        | 10                 | 2             | 16             | 6         | .....                | .....        | 28                 | .....         | .....             | .....                 | .....                     | 28                         | .....        |                |
| Fishing.....                       | 5                     | 5     | .....               | 10 14    | .....        | M.         | 21                  | 21                    | .....                           | 18         | 3                | 8         | 13                 | 1             | 6              | 11        | 3                    | .....        | 8                  | 18            | .....             | .....                 | .....                     | 21                         | .....        |                |

|   |     |     |    |    |                   |              |              |          |            |            |              |          |          |              |             |             |              |
|---|-----|-----|----|----|-------------------|--------------|--------------|----------|------------|------------|--------------|----------|----------|--------------|-------------|-------------|--------------|
| Fish markets.....                               | 7   | 7   | 11 | 7  | M.                | 36           | 10           | 6        | 6          | 8          | 2            | 4        | 4        | 5            | 30          | 4           | 84           |
| Flooring dealers.....                           | 1   | 1   | 10 | .. | M.                | 1            | ..           | 1        | 1          | ..         | ..           | 1        | ..       | ..           | 1           | ..          | 1            |
| Florists.....                                   | 1   | 1   | 10 | .. | M.                | 1            | ..           | ..       | ..         | 1          | ..           | ..       | ..       | 1            | 1           | ..          | 1            |
| Flour and feed.....                             | 49  | 48  | 11 | 23 | { F. }<br>M.      | 2            | 2            | ..       | ..         | 2          | ..           | 1        | 1        | 1            | 2           | ..          | 2            |
| Forwarding docks.....                           | 9   | 9   | 10 | 26 | M.                | 18           | 18           | 12       | 6          | 8          | 10           | 9        | 5        | 4            | 7           | 11          | 18           |
| Fruits, confectionery {<br>and canned goods...} | 31  | 31  | 11 | 3  | { F. }<br>M.      | 20<br>74     | 17<br>70     | 2<br>4   | 14<br>58   | 38<br>14   | 1<br>6       | 14<br>21 | 3<br>9   | 44           | 15<br>44    | 3<br>29     | 18<br>74     |
| Furniture and under-<br>taking                  | 103 | 99  | 2  | 10 | 31 { F. }<br>M.   | 6<br>342     | 5<br>332     | 1<br>10  | 4<br>180   | 5<br>124   | 5<br>147     | 3<br>120 | 3<br>91  | 62<br>303    | 3<br>2      | 1<br>35     | 6<br>337     |
| Gas companies.....                              | 13  | 11  | 2  | 11 | 12 M.             | 95           | 95           | 35       | 60         | 52         | 43           | 42       | 16       | 33           | 3           | 12          | 87           |
| Gas fixtures.....                               | 1   | 1   | 12 | .. | M.                | 1            | ..           | ..       | 1          | 1          | ..           | ..       | ..       | ..           | 1           | ..          | 1            |
| General stores.....                             | 80  | 76  | 1  | 12 | 16 { F. }<br>M.   | 40<br>306    | 38<br>297    | 2<br>9   | 34<br>210  | 5<br>96    | 3<br>154     | 3<br>138 | 15<br>88 | 21<br>48     | 28<br>138   | 1<br>143    | 39<br>304    |
| Glass dealers.....                              | 1   | 1   | 10 | .. | M.                | 18           | 18           | ..       | ..         | 8          | 10           | ..       | ..       | ..           | 18          | ..          | 18           |
| Gold and silver plat-<br>ing                    | 5   | 5   | 10 | .. | { F. }<br>M.      | 8<br>27      | 8<br>27      | 6<br>25  | 2<br>2     | 2<br>15    | 2<br>12      | 9        | 2<br>3   | 4<br>6       | 8<br>27     | ..          | 8<br>27      |
| Grain elevators.....                            | 13  | 13  | .. | 9  | 59 M.             | 118          | 117          | 1        | 55         | 63         | 85           | 33       | 50       | 23           | 10          | 66          | 118          |
| Groceries.....                                  | 514 | 467 | 37 | 5  | 12 4 { F. }<br>M. | 67<br>1,385  | 66<br>1,307  | 1<br>79  | 48<br>956  | 15<br>318  | 5<br>529     | 1<br>764 | 1<br>263 | 27<br>403    | 31<br>1,071 | 51<br>1,071 | 66<br>1,372  |
| Hack and 'bus lines.....                        | 11  | 10  | 1  | 13 | .. M.             | 176          | 172          | 4        | 117        | 27         | 96           | 80       | 42       | 79           | 150         | 26          | 176          |
| Hair goods.....                                 | 2   | 2   | 10 | 30 | F.                | 2            | 1            | 1        | 2          | ..         | ..           | 2        | ..       | 1            | 1           | 2           | 2            |
| Hardware, stoves and<br>tinware                 | 194 | 187 | 5  | 11 | 39 { F. }<br>M.   | 894<br>861   | 894<br>861   | 23<br>23 | 580<br>227 | 1<br>367   | 10<br>465    | 1<br>188 | 1<br>201 | 5<br>250     | 11<br>748   | 19<br>45    | 19<br>868    |
| Harness and trunks.....                         | 86  | 81  | 2  | 10 | 8 { F. }<br>M.    | 1<br>166     | 165          | 1        | 105        | 57         | 93           | 68       | 39       | 51           | 17          | 150         | 166          |
| Hats, caps and gents'<br>furnishing goods...}   | 34  | 32  | 1  | 11 | 34 { F. }<br>M.   | 13<br>86     | 13<br>85     | 1        | 10<br>61   | 3<br>13    | ..           | 3<br>48  | 1<br>23  | 12<br>19     | 13<br>80    | 2<br>4      | 13<br>89     |
| Hedge growers.....                              | 1   | 1   | 10 | .. | M.                | 26           | 26           | ..       | 36         | 23         | 3            | 10       | 7        | 7            | 2           | 26          | 26           |
| Hotels, board'g houses<br>and restaurants ...}  | 347 | 272 | 49 | 21 | 42 { F. }<br>M.   | 1,707<br>893 | 1,678<br>853 | 27<br>40 | 749<br>584 | 587<br>301 | 1,549<br>168 | 3<br>681 | 10<br>45 | 1,643<br>782 | 12<br>16    | 942<br>447  | 1,463<br>861 |
| House moving.....                               | 1   | 1   | 10 | .. | M.                | 4            | 4            | 4        | 4          | ..         | 2            | ..       | 1        | 2            | 1           | 4           | 4            |

TABLE No. 85.—Continued.

| Class of Business.            | Sanitary Condition. |       | Hrs per Day. | Number of Employees. |          |      | Nativity.     |                       | Civil Condition.                |         | Number of Employees |          |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
|-------------------------------|---------------------|-------|--------------|----------------------|----------|------|---------------|-----------------------|---------------------------------|---------|---------------------|----------|---------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|--------------|----------------|----------------------------|
|                               | Good.               | Fair. |              | Poor.                | Minutes. | Sex. | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native. | Foreign.            | Married. | Single. | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having money in Bank. | Having Money at Interest. | Apprentices. | Paid all Cash. | Paid part in Store Orders. |
|                               |                     |       |              |                      |          |      |               |                       |                                 |         |                     |          |         |               |                |           |                      |              |                    |               |                   |                       |                           |              |                |                            |
| Ice dealers.....              | 14                  | 10    |              | 10 18                | M.       | 88   | 88            |                       | 59                              | 29      | 59                  | 29       | 23      | 35            | 19             | 11        | 81                   |              | 7                  |               | 15                | 11                    |                           | 88           |                |                            |
| Jewelry.....                  | 68                  | 67    |              | 1 11 19              | F.       | 120  | 119           | 1                     | 95                              | 24      | 29                  | 85       | 12      | 21            | 51             | 1         | 1                    | 105          |                    | 12            |                   | 14                    | 4                         | 3            | 116            |                            |
| Junk and rag stores.....      | 3                   | 2     | 1            | 9 11                 | F.       | 34   | 34            |                       |                                 | 30      | 15                  | 15       |         |               | 3              | 15        | 34                   |              |                    |               |                   |                       |                           | 34           |                |                            |
| Laundries.....                | 39                  | 37    | 2            | 9 57                 | F.       | 246  | 246           | 3                     | 141                             | 74      | 30                  | 219      | 2       | 27            | 121            | 77        | 228                  | 9            | 4                  |               | 16                |                       |                           | 249          |                |                            |
| Leather and findings.....     | 4                   | 3     | 1            | 10 3                 | F.       | 39   | 39            |                       | 21                              | 18      | 22                  | 17       | 10      | 7             | 20             | 2         | 28                   |              | 11                 |               | 1                 |                       |                           | 39           |                |                            |
| Lime and hair.....            | 4                   | 3     |              | 10                   | F.       | 12   | 12            |                       | 4                               | 8       | 10                  | 2        | 4       | 1             | 1              | 1         | 12                   |              | 2                  |               | 1                 |                       |                           | 12           |                |                            |
| Liquor stores, wholesale..... | 4                   | 4     |              | 10                   | M.       | 20   | 20            |                       | 12                              | 8       | 13                  | 7        | 7       | 6             | 3              | 3         | 9                    |              | 7                  | 4             | 3                 |                       |                           | 20           |                |                            |
| Livery stables.....           | 129                 | 106   | 18           | 4 12 51              | F.       | 476  | 467           | 9                     | 336                             | 114     | 137                 | 317      | 23      | 103           | 288            | 37        | 333                  | 1            | 137                | 3             | 42                | 4                     |                           | 474          |                |                            |
| Lumber inspectors.....        | 4                   | 2     | 1            | 8 54                 | M.       | 31   | 31            |                       | 14                              | 17      | 19                  | 10       | 12      | 10            | 6              | 1         | 27                   |              | 4                  |               | 6                 |                       |                           | 31           |                |                            |
| Lumber yards.....             | 57                  | 53    | 2            | 10 11                | F.       | 706  | 700           | 6                     | 301                             | 385     | 407                 | 236      | 165     | 144           | 76             | 63        | 415                  | 287          | 23                 |               | 64                | 4                     |                           | 706          |                |                            |
| Machinery dealers.....        | 3                   | 2     | 1            | 10                   | M.       | 8    | 8             |                       | 7                               | 1       | 4                   | 4        | 2       | 3             |                | 8         | 8                    |              |                    |               |                   |                       |                           | 7            |                |                            |
| Mantels and grates.....       | 1                   | 1     |              | 10                   | M.       | 10   | 10            |                       | 2                               | 8       | 4                   | 6        | 2       | 2             | 1              | 5         | 10                   |              |                    |               | 1                 |                       |                           | 10           |                |                            |
| Markets.....                  | 11                  | 10    | 1            | 11 11                | F.       | 3    | 3             |                       | 2                               | 1       | 1                   | 3        | 6       | 8             | 2              | 1         | 3                    |              | 6                  |               | 1                 |                       |                           | 3            |                |                            |
| Meat markets.....             | 198                 | 163   | 13           | 12 52                | F.       | 463  | 455           | 28                    | 276                             | 5       | 1                   | 7        | 1       | 63            | 106            | 241       | 68                   | 384          |                    | 115           | 1                 | 4                     | 1                         | 10           | 469            | 5                          |

|  |     |     |          |          |            |              |              |          |           |           |          |           |    |     |           |           |            |         |         |    |              |           |
|--|-----|-----|----------|----------|------------|--------------|--------------|----------|-----------|-----------|----------|-----------|----|-----|-----------|-----------|------------|---------|---------|----|--------------|-----------|
| Military.....  | 91  | 90  | 1        | 10 27    | { F.<br>M. | 303<br>55    | 299<br>46    | 4        | 238<br>45 | 46<br>10  | 14<br>15 | 248<br>39 | 5  | 6   | 106<br>17 | 181<br>23 | 278<br>54  | 12      | 10      | 2  | 5            | 289<br>55 |
| Mill machinery and salt<br>block supplies.....               | 2   | 1   | 1        | 10       | M.         | 7            | 7            | 7        | 7         | 7         | 6        | 1         | 1  | 2   | 2         | 3         | 7          | 1       | 2       | 1  | 7            |           |
| Models and patterns.....                                     | 3   | 2   | 10       | 10       | M.         | 11           | 11           | 7        | 7         | 4         | 2        | 9         | 1  | 1   | 2         | 7         | 1          | 10      |         |    | 11           |           |
| Musical instruments.....                                     | 15  | 15  | 11 13    | 11 13    | { F.<br>M. | 10<br>77     | 8<br>75      | 2<br>2   | 7<br>64   | 3<br>13   | 55       | 10<br>22  | 11 | 34  | 3<br>20   | 4<br>10   | 9<br>63    | 1<br>13 | 3       | 3  | 10<br>77     |           |
| News depots.....   | 7   | 6   | 1        | 14 18    | { F.<br>M. | 13<br>3      | 6<br>7       | 7<br>7   | 3<br>13   | 1         | 13       | 2         | 2  | 3   | 3         | 2         | 3          | 12      |         |    | 3<br>13      |           |
| Notions and fancy<br>goods.....                              | 46  | 45  | 11 6     | 11 6     | { F.<br>M. | 161<br>140   | 139<br>119   | 22<br>21 | 92<br>93  | 10<br>14  | 4<br>37  | 111<br>76 | 1  | 28  | 1<br>30   | 92<br>50  | 158<br>116 | 2<br>9  | 1       | 4  | 160<br>139   |           |
| Offices.....   | 38  | 37  | 1        | 9 21     | { F.<br>M. | 86<br>21     | 79<br>7      | 7        | 17<br>59  | 3<br>25   | 1<br>40  | 19<br>43  | 15 | 24  | 1<br>21   | 16<br>23  | 20<br>46   | 1<br>40 | 5<br>13 | 5  | 20<br>86     |           |
| Oils.....  | 8   | 8   | 10       | 10       | M.         | 47           | 46           | 1        | 25        | 6         | 24       | 23        | 4  | 11  | 12        | 3         | 39         | 8       | 5       | 47 |              |           |
| Painting, paper-hang-<br>ing and decorating.....             | 55  | 51  | 1 10     | 1 10     | { F.<br>M. | 492<br>489   | 2<br>3       | 2<br>3   | 1<br>235  | 149       | 211      | 195       | 45 | 126 | 116       | 63        | 492        |         | 13      | 2  | 492          |           |
| Paints and oils.....   | 7   | 6   | 1        | 10 7     | { F.<br>M. | 62<br>6      | 60<br>2      | 2        | 10        | 13        | 43       | 19        | 10 | 31  | 12        | 9         | 62         | 1       | 1       | 1  | 62           |           |
| Paper carriers.....  | 2   | 2   | 2 55     | 2 55     | M.         | 24           | 24           | 24       | 21        | 3         |          | 24        |    |     |           | 24        | 24         |         |         | 24 |              |           |
| Paper dealers.....   | 12  | 12  | 10 5     | 10 5     | { F.<br>M. | 5<br>49      | 5<br>49      |          | 25        | 10        | 35       | 14        | 12 | 18  | 12        | 6         | 49         |         | 2       | 2  | 5<br>49      |           |
| Paper patterns.....  | 1   | 1   | 9        | 9        | { F.<br>M. | 4<br>1       | 4<br>1       | 1        | 4         |           |          | 4         |    |     |           | 4         | 4          |         |         | 4  |              |           |
| Peddlers.....  | 1   | 1   | 10       | 10       | M.         | 10           | 10           | 10       | 10        |           |          |           |    |     |           | 1         | 1          | 10      |         |    | 10           |           |
| Photographing.....   | 27  | 26  | 9 29     | 9 29     | { F.<br>M. | 25<br>31     | 25<br>30     | 1        | 21<br>22  | 4<br>9    | 2<br>8   | 23<br>23  | 2  | 6   | 8         | 14        | 23         |         | 3       | 1  | 23           |           |
| Pictures and picture<br>frames.....                          | 6   | 6   | 10 22    | 10 22    | M.         | 32           | 31           | 1        | 19        | 13        | 11       | 21        | 2  | 11  | 13        | 6         | 32         |         | 3       | 32 |              |           |
| Plasterers and masons.<br>Plumbing and gas fit-<br>ting..... | 11  | 7   | 10       | 10       | M.         | 145          | 145          |          | 36        | 31        | 57       | 38        | 17 | 31  | 27        | 11        | 52         | 78      | 1       | 4  | 145          |           |
|  | 43  | 39  | 2 10     | 2 10     | M.         | 410          | 406          | 4        | 247       | 110       | 147      | 263       | 35 | 88  | 106       | 115       | 389        | 10      | 1       | 27 | 410          |           |
| Pork and meat packing  | 6   | 6   | 10 5     | 10 5     | { F.<br>M. | 1<br>157     | 155<br>2     | 14       | 24        | 39        | 54       | 24        | 13 | 26  | 5         | 4         | 157        |         | 7       | 1  | 157          |           |
| Postoffices.....   | 6   | 6   | 12 40    | 12 40    | { F.<br>M. | 5<br>7       | 5<br>6       | 1        | 4<br>6    | 1         | 1        | 4<br>6    |    | 1   | 3         | 1         | 1          | 4       |         | 5  | 5            |           |
| Printing, publishing<br>and binding.....                     | 156 | 133 | 12 210 3 | 12 210 3 | { F.<br>M. | 120<br>1,413 | 115<br>1,228 | 5<br>185 | 80<br>824 | 16<br>250 | 4<br>410 | 95<br>688 | 3  | 7   | 38        | 43        | 117        | 9       | 6       | 4  | 120<br>1,403 |           |



TABLE No. 85.—Continued.

| Class of Business.        | Number in each Class. |       | Sanitary Condition. |        | Hrs per Day. | Sex.       | Number of Employees. |               |                       | Nativity.                       |          | Civil Condition. |           | Number of Employees |               |                |           |                      |              |                    |               |                   |                       |                           |                |                            |
|---------------------------|-----------------------|-------|---------------------|--------|--------------|------------|----------------------|---------------|-----------------------|---------------------------------|----------|------------------|-----------|---------------------|---------------|----------------|-----------|----------------------|--------------|--------------------|---------------|-------------------|-----------------------|---------------------------|----------------|----------------------------|
|                           | Good.                 | Fair. | Poor.               | Hours. |              |            | Minutes.             | Total Number. | Over 16 years of age. | Sixteen years of age and under. | Native.  | Foreign.         | Married.  | Single.             | Owning Homes. | Renting Homes. | Boarding. | Living with Parents. | Paid Weekly. | Paid Semi-monthly. | Paid Monthly. | Paid Irregularly. | Having Money in Bank. | Having Money at Interest. | Paid all Cash. | Paid part in Store Orders. |
|                           |                       |       |                     |        |              |            |                      |               |                       |                                 |          |                  |           |                     |               |                |           |                      |              |                    |               |                   |                       |                           |                |                            |
| Pumps and windmills....   | 2                     | 2     | ...                 | 10     | 17           | M.         | 7                    | 7             | ...                   | 7                               | ...      | 6                | 1         | 1                   | 4             | 1              | 1         | 6                    | 1            | 6                  | 1             | ...               | ...                   | 7                         | ...            |                            |
| Railroading.....          | 39                    | 36    | ...                 | 9      | 56           | { F.<br>M. | 8<br>1,132           | 8<br>1,149    | 3                     | 585<br>285                      | ...      | 614<br>216       | 5<br>1    | 282<br>308          | 197<br>93     | 3              | 3         | 2                    | 6            | 1,140              | 67            | 20                | 1,132                 | ...                       | ...            |                            |
| Roofing.....              | 6                     | 6     | ...                 | 10     | ...          | M.         | 71                   | 71            | ...                   | 23                              | 48       | 30               | 21        | 19                  | 11            | 12             | 9         | 36                   | 35           | ...                | ...           | ...               | 71                    | ...                       |                |                            |
| Rubber goods.....         | 1                     | 1     | ...                 | 10     | ...          | M.         | 8                    | 8             | ...                   | 3                               | 5        | 4                | 4         | 1                   | 3             | 4              | ...       | 8                    | ...          | ...                | ...           | ...               | 8                     | ...                       |                |                            |
| Safes and locks.....      | 1                     | 1     | ...                 | 10     | ...          | M.         | 2                    | 2             | ...                   | 1                               | 1        | 2                | ...       | ...                 | 2             | ...            | ...       | 2                    | ...          | ...                | ...           | ...               | 2                     | ...                       |                |                            |
| Sanitariums .....         | 1                     | 1     | ...                 | 15     | ...          | { F.<br>M. | 3<br>5               | 3<br>5        | ...                   | 2<br>2                          | ...      | 2<br>4           | 1         | ...                 | 4             | 1              | ...       | 2                    | 5            | ...                | ...           | ...               | 2                     | ...                       |                |                            |
| Second-hand stores.....   | 14                    | 6     | 7                   | 10     | 57           | M.         | 19                   | 18            | 1                     | 12                              | 7        | 12               | 7         | 3                   | 9             | 5              | 2         | 19                   | ...          | ...                | 4             | ...               | 19                    | ...                       |                |                            |
| Seeds.....                | 4                     | 4     | ...                 | 10     | ...          | { F.<br>M. | 292<br>130           | 273<br>117    | 19<br>3               | 224<br>92                       | 66<br>26 | 10<br>63         | 282<br>57 | 7<br>27             | 8<br>39       | 26<br>24       | 251<br>24 | 11<br>113            | 281          | ...                | 4             | 10                | 4                     | 292<br>130                | ...            |                            |
| Sewing machines.....      | 18                    | 17    | ...                 | 10     | 6            | { F.<br>M. | 13<br>57             | 13<br>56      | 1                     | 10<br>48                        | 3<br>9   | 4<br>28          | 7<br>19   | 2<br>10             | 2<br>24       | 2<br>21        | 1<br>4    | 13<br>51             | ...          | 6                  | 1             | 6                 | 13<br>57              | ...                       |                |                            |
| Sidewalks.....            | 1                     | 1     | ...                 | 10     | ...          | M.         | 8                    | 8             | ...                   | 3                               | 5        | 4                | 4         | 3                   | 1             | 4              | ...       | 8                    | ...          | ...                | 1             | 1                 | 8                     | ...                       |                |                            |
| Sporting goods.....       | 8                     | 6     | 1                   | 10     | 2            | { F.<br>M. | 11<br>11             | 11<br>11      | ...                   | 1<br>11                         | ...      | 1<br>3           | 1<br>8    | 2<br>2              | 1             | ...            | 1<br>6    | 1<br>11              | 1            | ...                | ...           | ...               | 11<br>3               | ...                       |                |                            |
| Stencils and stamps.....  | 2                     | 1     | 1                   | 10     | ...          | M.         | 2                    | 3             | ...                   | 3                               | ...      | 3                | ...       | ...                 | ...           | 2              | 1         | 3                    | ...          | ...                | ...           | 3                 | ...                   |                           |                |                            |
| Stones and monuments      | 31                    | 26    | ...                 | 9      | 53           | M.         | 163                  | 162           | 1                     | 65                              | 47       | 106              | 39        | 22                  | 56            | 36             | 11        | 132                  | 28           | 3                  | 3             | 2                 | 155                   | 8                         |                |                            |
| Storage companies.....    | 3                     | 3     | ...                 | 11     | 49           | M.         | 28                   | 28            | ...                   | 23                              | 5        | 14               | 14        | 1                   | 13            | 12             | 2         | 28                   | ...          | ...                | ...           | ...               | 28                    | ...                       |                |                            |
| Street railways.....      | 9                     | 6     | 2                   | 11     | 38           | { F.<br>M. | 2<br>238             | 2<br>238      | ...                   | 1<br>170                        | 88       | 148              | 110       | 2<br>30             | 92            | 53             | 17        | 192                  | 34           | 32                 | 49            | 1                 | 258                   | ...                       |                |                            |
| Subscription agencies.... | 2                     | 2     | ...                 | 8      | ...          | { F.<br>M. | 4<br>50              | 4<br>50       | ...                   | 4<br>40                         | 10       | 8                | 12        | ...                 | 8             | 42             | 3         | 20                   | 1            | 30                 | 3             | 4                 | 50                    | ...                       |                |                            |

|  |     |    |    |    |    |    |    |     |     |     |    |     |     |     |     |    |    |     |     |     |    |     |    |    |     |
|--|-----|----|----|----|----|----|----|-----|-----|-----|----|-----|-----|-----|-----|----|----|-----|-----|-----|----|-----|----|----|-----|
| Tailoring.....                         | 104 | 95 | 7  | 2  | 10 | 18 | F. | 216 | 482 | 215 | 1  | 139 | 65  | 50  | 162 | 6  | 36 | 52  | 100 | 201 | 6  | 9   | 11 | 2  | 215 |
| Teas, coffee and spices.               | 26  | 25 | 1  | 10 | 18 | M. | F. | 96  | 84  | 6   | 12 | 73  | 23  | 31  | 65  | 5  | 29 | 31  | 5   | 6   | 38 | 18  | 5  | 2  | 468 |
| Telegraph and telephone companies..... | 18  | 18 | 10 | 10 | 10 | F. | M. | 59  | 50  | 53  | 6  | 53  | 6   | 3   | 56  | 1  | 1  | 17  | 41  | 4   | 2  | 53  | 5  | 1  | 96  |
| Telegraph messengers.                  | 1   | 1  | 1  | 1  | 1  | M. | M. | 138 | 102 | 56  | 56 | 134 | 24  | 34  | 122 | 14 | 26 | 54  | 64  | 5   | 6  | 147 | 25 | 12 | 158 |
| Train newsboys.....                    | 1   | 1  | 1  | 1  | 1  | M. | M. | 12  | 5   | 7   | 11 | 1   | 1   | 2   | 10  | 2  | 2  | 10  | 10  | 12  | 12 | 12  | 12 | 12 | 12  |
| Vessels and tugs.....                  | 30  | 21 | 11 | 21 | 11 | F. | M. | 5   | 5   | 4   | 19 | 1   | 1   | 1   | 1   | 1  | 1  | 19  | 19  | 19  | 19 | 19  | 19 | 19 | 19  |
| Vessel supplies.....                   | 3   | 3  | 9  | 18 | 9  | F. | M. | 408 | 4   | 4   | 1  | 148 | 144 | 141 | 177 | 90 | 41 | 163 | 10  | 198 | 2  | 220 | 13 | 26 | 492 |
| Woodenware.....                        | 1   | 1  | 10 | 10 | 10 | M. | M. | 36  | 36  | 9   | 9  | 9   | 2   | 8   | 3   | 8  | 8  | 17  | 3   | 26  | 4  | 10  | 10 | 10 | 36  |
| Woolens.....                           | 2   | 2  | 13 | 13 | 13 | F. | M. | 3   | 3   | 3   | 2  | 2   | 1   | 1   | 3   | 1  | 1  | 1   | 2   | 3   | 9  | 6   | 1  | 8  | 70  |
| Wool, hides and pelts.....             | 13  | 12 | 9  | 50 | 9  | M. | M. | 70  | 68  | 2   | 16 | 36  | 54  | 16  | 20  | 34 | 7  | 8   | 8   | 63  | 6  | 1   | 8  | 5  | 70  |

TABLE NO. 36.—*Showing by Occupation or Class of Business the Number of Male and the Average Wages per Week paid in each class of Business (other than Manufactured, see page 277.)*

| Class of Business.                           | Sex.         | Wages per Week. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--|--------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  |              | \$1 00.         | \$1 50. | \$2 00. | \$2 25. | \$2 50. | \$2 75. | \$3 00. | \$3 50. | \$3 60. | \$3 75. | \$4 00. | \$4 25. | \$4 50. | \$5 00. | \$5 50. | \$6 00. |
| Advertising agencies.....                    | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |
|  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Agricultural implements.....                 | Females..... |                 |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |
|  | Males.....   |                 |         | 1       |         |         |         | 1       |         |         |         |         |         | 4       |         | 3       | 1       |
| Architects' offices.....                     | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         | 1       |         |         |         |
| Art stores.....                              | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Artists' supplies.....                       | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Auction stores.....                          | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bakeries.....                                | Males.....   | 1               | 1       | 2       |         | 1       | 3       | 1       |         |         | 5       | 1       | 3       | 3       | 6       | 5       | 1       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Baking powder and extracts.....              | Males.....   |                 |         |         |         |         |         | 8       | 1       |         |         |         | 1       |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bankers and brokers.....                     | Males.....   | 1               |         |         |         | 1       |         |         |         |         | 1       |         | 2       | 5       |         | 3       | 1       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Barber shops and bath-rooms.....             | Males.....   |                 | 2       | 2       | 1       | 3       | 2       |         |         |         | 3       | 2       | 7       | 2       |         | 16      |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Billposters.....                             | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Blacksmithing and horseshoeing.....          | Males.....   |                 |         | 1       |         | 1       | 5       | 2       |         |         | 8       | 1       | 4       | 1       |         | 22      |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bleacheries.....                             | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Books and stationery.....                    | Males.....   |                 |         | 3       | 1       |         | 1       | 5       | 4       | 1       | 2       |         | 2       | 2       | 1       | 1       | 11      |
|  | Females..... |                 | 1       |         |         |         | 3       | 1       |         |         |         |         |         |         |         |         |         |
| Booming and rafting logs.....                | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Boots and shoes.....                         | Males.....   |                 |         | 2       |         | 1       |         | 1       | 1       |         |         | 1       | 2       | 1       |         | 4       |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bottling works.....                          | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Brick, tile, cement, etc.....                | Males.....   |                 |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bridge tenders.....                          | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Brooms and brushes.....                      | Males.....   |                 |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Carpet cleaning.....                         | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Carriages and wagons.....                    | Males.....   |                 |         |         |         |         |         | 1       |         |         | 3       |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Cedar posts and ties.....                    | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Cigars and tobacco.....                      | Males.....   |                 |         | 1       |         |         |         |         |         |         | 1       |         | 1       |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| City laborers and water-works employees..... | Males.....   |                 |         |         |         |         |         | 7       |         |         |         |         | 1       | 1       |         | 5       | 1       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Clothing.....                                | Males.....   |                 |         | 1       |         | 1       | 8       | 1       |         |         | 13      |         | 19      | 1       |         | 120     | 1       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Coal and wood yards.....                     | Males.....   |                 |         | 1       |         | 1       | 1       |         |         |         | 2       | 1       | 3       |         |         | 76      |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Commission and produce.....                  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Contractors, carpenters and builders.....    | Males.....   |                 |         | 1       |         | 6       | 2       | 6       |         |         |         | 3       | 1       |         |         | 15      |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Costumers.....                               | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Crockery, stone and glassware.....           | Males.....   |                 |         | 2       |         |         | 1       | 1       |         |         | 7       | 1       | 2       |         |         | 2       |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Dairies.....                                 | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Dentists' offices.....                       | Males.....   |                 |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Draying.....                                 | Males.....   |                 |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Dressed meats.....                           | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Dressmaking.....                             | Males.....   | 2               | 2       |         |         |         | 7       | 4       | 2       |         |         | 5       | 2       |         |         | 5       | 3       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Drugs.....                                   | Males.....   |                 |         | 6       |         | 5       | 18      | 3       |         | 1       | 13      | 5       | 21      | 2       |         | 128     | 2       |
|  | Females..... | 1               |         | 4       |         |         | 29      | 8       |         |         | 57      | 9       | 75      | 4       |         | 194     |         |
| Dry goods.....                               | Males.....   |                 |         | 4       |         | 5       | 13      | 4       |         |         | 15      | 3       | 17      | 1       |         | 31      | 1       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Dye works.....                               | Males.....   |                 |         |         |         |         |         |         |         |         | 1       |         | 1       |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |

*Female Employés over Sixteen Years of Age receiving each given rate of Wage and ing) in 51 Cities and Towns reported by Special Canvassers. (For list of places can-*

## Wages per Week.

| \$6 50. | \$6 75. | \$6 90. | \$7 00. | \$7 25. | \$7 50. | \$7 80. | \$7 85. | \$8 00. | \$8 25. | \$8 40. | \$8 50. | \$8 75. | \$9 00. | \$9 25. | \$9 50. | \$9 80. | \$10 00. | \$10 40. | \$10 50. | \$10 80. | \$11 00. | \$11 25. | \$11 50. | \$11 66. | \$12 00. | \$12 25. | \$12 30. | \$13 00. | \$13 25. | \$13 50. | \$13 85. | \$14 00. | \$14 50. | \$15 00. |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2       |         |         |         |         | 5       |         |         | 6       | 1       |         | 1       |         | 9       | 1       |         |         | 12       |          |          |          | 1        |          |          |          | 14       |          | 3        | 2        |          |          |          |          |          | 16       |
|         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |         |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          |          |          |          | 1        |
| 5       |         |         | 1       |         | 1       |         |         |         |         |         |         |         | 1       |         |         |         | 2        |          |          | 1        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 4       |         |         | 2       | 1       | 5       |         |         | 6       |         |         | 15      |         | 10      |         | 5       |         | 15       |          |          | 4        | 17       |          | 3        | 2        | 62       |          | 2        | 6        |          | 3        |          |          | 2        | 4        |
|         |         |         |         |         | 1       |         |         | 1       |         |         |         |         |         |         |         |         |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          |          |          | 1        |          |
| 2       |         |         | 1       | 1       | 3       |         |         | 1       |         |         |         | 1       | 4       | 2       | 2       |         | 5        | 1        |          | 4        | 1        | 7        |          |          | 8        | 1        | 4        |          |          | 4        | 2        | 7        | 2        | 5        |
| 2       |         |         | 2       | 1       | 15      |         |         | 8       |         |         | 6       |         | 19      |         | 7       |         | 69       |          |          |          | 12       | 1        |          |          | 10       |          | 8        | 11       |          | 3        | 19       |          | 9        |          |
|         |         |         | 2       | 1       |         |         |         | 5       |         |         | 1       |         | 59      | 1       | 3       |         | 25       |          |          | 21       | 6        | 3        |          |          | 66       | 2        | 2        |          | 1        | 12       | 2        |          | 43       |          |
|         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |         |         |         | 10       |          |          |          | 5        |          |          |          | 1        |          |          |          |          |          |          |          |          |          |
| 18      |         |         | 3       |         |         |         |         | 3       |         |         |         |         | 6       |         |         |         | 1        |          |          |          |          |          |          |          | 3        |          | 2        |          |          |          |          |          |          |          |
| 15      |         |         | 35      |         | 71      |         |         | 25      |         |         | 45      |         | 38      | 7       | 160     |         | 41       | 120      | 79       |          | 9        |          | 1        | 6        |          | 3        | 4        | 2        |          | 1        | 1        | 2        | 12       |          |
| 2       |         |         |         |         |         |         |         | 1       |         |         |         |         | 1       |         |         |         | 1        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 1       |         |         | 14      |         | 16      |         |         | 32      |         |         | 6       |         | 44      |         | 3       |         | 63       |          | 7        |          | 3        | 1        |          |          | 100      |          | 6        | 2        |          | 1        | 8        |          | 26       |          |
|         |         |         |         |         | 2       |         |         | 2       |         |         | 2       |         | 11      |         |         |         | 11       |          |          |          |          |          |          |          | 6        |          | 1        |          |          |          | 1        |          | 6        |          |
|         |         |         | 1       |         | 13      |         |         | 6       |         | 4       |         |         | 5       |         |         |         | 1        |          |          |          |          |          |          |          | 2        |          | 1        |          |          |          |          |          | 1        |          |
|         |         |         | 3       |         |         |         |         |         |         |         |         |         |         |         |         |         |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|         |         |         | 2       |         | 1       |         |         | 1       |         |         |         |         | 5       |         |         |         | 1        |          | 2        |          |          |          |          |          | 1        |          |          |          |          |          |          |          | 1        |          |
|         |         |         |         |         |         |         |         |         |         |         |         |         | 100     |         |         |         |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          |          |          | 7        |          |
|         |         |         | 2       |         | 1       |         |         | 5       |         |         |         |         | 2       |         | 1       |         | 7        |          |          |          | 1        |          | 1        |          | 5        |          | 1        | 1        |          | 1        | 2        |          | 10       |          |
|         |         |         | 2       |         | 137     |         |         | 6       | 9       |         |         |         | 104     |         | 13      |         | 4        |          |          |          | 1        | 2        |          | 36       | 5        | 12       |          | 2        |          | 1        | 1        |          | 7        |          |
| 1       | 3       |         | 27      |         | 4       |         |         | 25      |         |         | 3       |         | 24      |         | 2       | 1       | 63       |          | 5        | 2        | 7        |          | 1        |          | 105      |          | 9        | 2        | 1        | 3        | 1        | 21       | 76       |          |
| 1       | 1       |         | 10      |         | 1       |         |         | 1       |         |         |         |         | 71      |         | 4       | 35      | 43       |          | 10       | 35       | 4        |          |          |          | 44       |          | 5        |          |          | 1        | 2        |          | 4        |          |
| 1       |         |         | 10      |         | 1       |         |         | 3       |         |         | 1       |         | 17      |         | 3       |         | 17       |          | 3        |          | 1        |          | 1        |          | 17       |          | 3        |          |          |          | 2        |          | 9        |          |
| 1       |         |         | 8       | 2       | 180     | 62      |         | 4       |         | 25      |         | 484     |         | 3       |         | 80      |          | 136      |          | 6        | 13       |          |          |          | 329      |          | 8        | 3        |          | 71       | 11       | 1        | 114      |          |
| 1       |         |         | 1       |         | 2       |         |         | 3       |         |         |         |         | 2       |         |         |         | 8        |          |          |          | 1        |          | 1        |          |          |          |          |          |          |          |          |          |          |          |
|         |         |         | 1       |         | 1       |         |         | 3       |         |         |         |         | 11      |         | 1       |         |          |          |          |          | 1        |          |          |          | 10       |          | 2        |          |          |          |          |          | 10       |          |
|         |         |         |         |         |         |         |         |         |         |         | 1       |         |         |         |         |         | 1        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|         |         |         | 2       | 1       | 12      |         |         | 3       |         | 2       |         |         | 7       |         | 5       | 3       | 4        |          | 1        | 2        | 1        |          |          |          |          |          |          |          |          |          |          |          |          |          |
|         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 4        |          |          |          |          |          |          |          | 1        |          |          |          |          |          |          |          |          |          |
|         |         |         | 2       |         |         |         |         | 1       |         |         |         |         | 24      | 1       |         | 1       | 56       |          |          |          | 5        |          | 3        |          | 59       |          | 21       |          |          |          |          |          |          |          |
| 3       | 1       |         | 15      |         | 2       |         |         | 33      |         |         | 4       |         | 25      |         |         | 1       | 27       |          | 2        |          | 8        |          | 1        |          | 8        |          | 2        |          |          |          |          |          |          | 29       |
| 5       | 1       |         | 31      |         |         |         |         | 39      |         |         | 1       |         | 45      |         |         | 8       | 124      |          | 1        |          | 11       | 3        | 10       |          | 112      |          | 1        | 25       |          |          |          |          |          | 52       |
| 1       |         |         | 1       |         |         |         |         | 30      |         |         |         |         |         |         |         |         |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|         |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         | 3        |          |          |          |          |          |          |          | 6        |          |          |          |          |          |          |          |          | 3        |

TABLE No. 36.—Continued.

| Class of Business.                          | Sex.     | Wages per Week. |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|---|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   |          | \$15 50.        | \$16 00. | \$16 50. | \$17 00. | \$17 25. | \$17 50. | \$18 00. | \$18 50. | \$18 75. | \$19 00. | \$19 25. | \$19 50. | \$20 00. | \$20 75. | \$21 00. | \$22 00. | \$22 50. |
| Advertising agencies.....                   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Males.   | -               | 1        | -        | -        | -        | -        | 1        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Agricultural implements.....                | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Males.   | 2               | 1        | -        | -        | -        | -        | -        | 4        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Architects' offices.....                    | Males.   | -               | -        | 1        | -        | -        | -        | 1        | -        | -        | -        | -        | 1        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Art stores.....                             | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Artists' supplies.....                      | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Auction stores.....                         | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Bakeries.....                               | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Baking powder and extracts.....             | Males.   | -               | -        | -        | -        | -        | -        | 1        | -        | -        | -        | -        | 2        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Bankers and brokers.....                    | Males.   | 1               | 1        | 3        | 8        | 2        | 1        | 5        | 3        | 1        | 2        | 3        | 12       | 3        | -        | 2        | 3        | 4        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Barber shops and bath-rooms.....            | Males.   | -               | 1        | -        | -        | -        | -        | 1        | -        | -        | -        | -        | 3        | -        | -        | -        | -        | -        |
| Billposters.....                            | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Blacksmithing and horseshoeing.....         | Males.   | -               | 55       | -        | 1        | -        | 15       | -        | -        | -        | -        | -        | 1        | -        | 1        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Bleacheries.....                            | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Books and stationery.....                   | Males.   | 1               | -        | -        | 1        | -        | 2        | -        | -        | 1        | -        | -        | 3        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Booming and rafting logs.....               | Males.   | 2               | 2        | 1        | -        | 3        | -        | 1        | -        | -        | -        | 1        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Boots and shoes.....                        | Males.   | -               | 2        | -        | -        | -        | 1        | -        | -        | 1        | -        | 6        | -        | -        | 2        | -        | 2        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Bottling works.....                         | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Brick, tile, cement, etc.....               | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Bridge tenders.....                         | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Brooms and brushes.....                     | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Carpet cleaning.....                        | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Carriages and wagons.....                   | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Cedar posts and ties.....                   | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Cigars and tobacco.....                     | Males.   | -               | 1        | -        | -        | -        | 4        | -        | -        | 1        | -        | 7        | -        | -        | -        | 1        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| City laborers and water-works employes..... | Males.   | 1               | 3        | -        | -        | -        | 8        | -        | -        | -        | -        | 1        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Clothing.....                               | Males.   | 6               | -        | 1        | -        | 3        | 23       | -        | 1        | 1        | -        | 1        | 31       | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Coal and wood yards.....                    | Males.   | 1               | -        | 2        | -        | -        | 2        | 10       | -        | -        | -        | 2        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Commission and produce.....                 | Males.   | -               | -        | -        | -        | -        | 1        | -        | -        | -        | -        | 5        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Contractors, carpenters and builders.....   | Males.   | 2               | 4        | -        | -        | -        | 71       | -        | -        | 6        | -        | 3        | -        | -        | 114      | -        | 2        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Costumers.....                              | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Crockery, stone and glassware.....          | Males.   | -               | -        | 3        | -        | -        | -        | -        | -        | -        | -        | 5        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dairies.....                                | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dentists' offices.....                      | Males.   | -               | -        | -        | -        | -        | 1        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Drying.....                                 | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dressed meats.....                          | Males.   | -               | -        | -        | -        | -        | 3        | -        | 1        | -        | -        | 1        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dressmaking.....                            | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Drugs.....                                  | Males.   | 1               | 2        | 2        | 2        | -        | 4        | -        | -        | 2        | 2        | -        | 5        | -        | -        | 2        | 4        | -        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dry goods.....                              | Males.   | 5               | 14       | 3        | 4        | -        | 1        | 18       | -        | 3        | -        | 1        | 17       | -        | -        | 5        | 1        | 3        |
|   | Females. | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |
| Dye works.....                              | Males.   | -               | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        |

TABLE No. 36.—Continued.

| Wages per Week. |   | Total Number. | Average weekly Wages. |
|-----------------|---|---------------|-----------------------|
| \$23.00.        | 1 | 1             | \$6.00                |
| \$23.50.        | 1 | 2             | 17.00 +               |
| \$24.00.        | 1 | 1             | 3.50                  |
| \$25.00.        | 1 | 92            | 11.20 +               |
| \$27.00.        | 1 | 10            | 13.00                 |
| \$28.50.        | 1 | 2             | 7.25                  |
| \$29.00.        | 1 | 2             | 12.00                 |
| \$30.00.        | 1 | 1             | 8.00                  |
| \$31.00.        | 1 | 6             | 12.66 +               |
| \$31.25.        | 1 | 41            | 5.66 +                |
| \$33.00.        | 1 | 160           | 8.68 +                |
| \$34.00.        | 1 | 10            | 3.20                  |
| \$35.00.        | 1 | 11            | 14.13                 |
| \$36.00.        | 1 | 3             | 5.25                  |
| \$37.00.        | 1 | 246           | 19.55                 |
| \$37.50.        | 1 | 7             | 6.85 +                |
| \$38.00.        | 1 | 232           | 9.98 +                |
| \$38.50.        | 1 | 14            | 8.39 +                |
| \$39.00.        | 1 | 340           | 10.75 +               |
| \$40.00.        | 1 | 2             | 4.00                  |
| \$40.50.        | 1 | 1             | 6.00                  |
| \$42.00.        | 1 | 19            | 6.26 +                |
| \$43.75.        | 1 | 74            | 9.14 +                |
| \$45.00.        | 1 | 19            | 6.57 +                |
| \$48.00.        | 1 | 698           | 9.63 +                |
| \$50.00.        | 1 | 16            | 5.87 +                |
| \$52.00.        | 1 | 409           | 10.22 +               |
| \$54.00.        | 1 | 1             | 6.50                  |
| \$56.00.        | 1 | 54            | 10.03                 |
| \$57.50.        | 1 | 45            | 7.67 +                |
| \$60.00.        | 1 | 3             | 11.33 +               |
| \$62.50.        | 1 | 1             | 3.00                  |
| \$68.75.        | 1 | 3             | 7.00                  |
| \$80.00.        | 1 | 8             | 11.12 +               |
|                 | 1 | 30            | 10.16 +               |
|                 | 1 | 100           | 9.00                  |
|                 | 1 | 3             | 3.66 +                |
|                 | 1 | 73            | 12.45                 |
|                 | 1 | 363           | 9.56 +                |
|                 | 1 | 111           | 5.50 +                |
|                 | 1 | 570           | 12.65 +               |
|                 | 1 | 3             | 6.83 +                |
|                 | 1 | 636           | 8.19 +                |
|                 | 1 | 4             | 5.87 +                |
|                 | 1 | 114           | 10.76 +               |
|                 | 1 | 3             | 5.00                  |
|                 | 1 | 1,872         | 11.28 +               |
|                 | 1 | 1             | 11.50                 |
|                 | 1 | 25            | 5.72                  |
|                 | 1 | 86            | 10.23 +               |
|                 | 1 | 2             | 5.25                  |
|                 | 1 | 5             | 7.65                  |
|                 | 1 | 1             | 3.50                  |
|                 | 1 | 7             | 11.50                 |
|                 | 1 | 53            | 8.13 +                |
|                 | 1 | 14            | 12.65 +               |
|                 | 1 | 32            | 4.00 +                |
|                 | 1 | 21            | 4.76 +                |
|                 | 1 | 429           | 10.21 +               |
|                 | 1 | 435           | 6.31 +                |
|                 | 1 | 700           | 10.58 +               |
|                 | 1 | 8             | 5.75                  |
|                 | 1 | 16            | 11.40                 |

TABLE NO. 36.—Continued.

| Class of Business.                       | Sex.         | Wages per Week. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--|--------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  |              | \$1 00.         | \$1 50. | \$2 00. | \$2 25. | \$2 50. | \$2 75. | \$3 00. | \$3 50. | \$3 75. | \$4 00. | \$4 25. | \$4 50. | \$5 00. | \$5 50. | \$5 75. | \$6 00. |
| Electric light companies.....            | Males.....   |                 |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         | 1       |
| Engraving.....                           | Males.....   |                 |         | 2       |         |         |         | 2       |         |         |         |         |         |         |         |         |         |
| Express companies.....                   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Males.....   |                 |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Feathers.....                            | Females..... |                 |         |         |         |         |         | 8       |         |         |         |         |         |         |         |         |         |
| Fire departments.....                    | Males.....   |                 |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |
| Fishing.....                             | Males.....   |                 |         |         |         |         |         |         |         | 2       |         |         |         |         |         |         | 2       |
| Fish markets.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 17      |
| Flooring dealers.....                    | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Florists.....                            | Males.....   |                 |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         | 1       |
| Flour and feed.....                      | Males.....   |                 |         | 1       |         |         |         | 1       |         |         |         | 1       | 3       | 1       |         |         | 10      |
| Forwarding docks.....                    | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |
| Fruit, confectionery and canned goods..  | Females..... |                 |         |         |         |         |         | 1       | 1       |         | 4       |         |         | 2       |         |         | 7       |
|  | Males.....   |                 | 1       |         | 1       |         |         |         |         |         | 2       |         |         | 2       | 1       |         | 1       |
| Furniture and undertaking.....           | Females..... |                 |         | 1       |         |         |         |         |         |         | 2       |         |         |         |         |         |         |
|  | Males.....   |                 |         | 1       |         | 1       |         | 6       | 1       |         | 3       |         | 6       | 10      | 1       |         | 24      |
| Gas companies.....                       | Males.....   |                 |         |         |         |         |         |         |         | 3       |         |         |         |         |         |         | 3       |
| Gas fixtures.....                        | Males.....   |                 |         |         |         |         |         |         |         | 3       |         |         |         |         |         |         |         |
| General stores.....                      | Females..... |                 |         | 3       |         |         |         | 2       |         |         | 1       | 3       | 1       | 2       |         |         | 5       |
|  | Males.....   | 1               |         | 3       |         |         |         | 5       |         | 1       |         |         | 6       |         |         |         | 13      |
| Glass dealers.....                       | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         | 2       |         |         |         |         | 5       |         |         |         | 1       |
| Gold and silver plating.....             | Males.....   |                 |         |         |         |         |         |         |         | 1       |         | 1       |         |         |         |         | 3       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Grain elevators.....                     | Males.....   |                 |         |         | 1       |         |         | 1       |         |         |         |         |         |         |         |         | 4       |
| Groceries.....                           | Females..... |                 | 1       | 5       |         | 3       | 1       | 7       | 1       |         | 5       | 1       | 3       | 13      | 1       |         | 16      |
|  | Males.....   |                 | 5       |         |         |         |         | 21      | 6       |         | 26      | 2       | 7       | 74      | 9       |         | 88      |
| Hack and 'bus lines.....                 | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |
| Hair goods.....                          | Females..... |                 |         |         |         |         |         |         |         |         |         |         | 1       |         |         |         |         |
|  | Males.....   |                 |         | 1       |         |         |         |         |         | 2       |         |         |         |         |         |         | 6       |
| Hardware, stoves and tinware.....        | Females..... |                 |         | 3       | 1       | 2       |         | 9       | 2       |         | 12      | 17      | 5       | 29      | 1       | 3       | 60      |
|  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Harness and trunks.....                  | Females..... |                 |         |         |         |         |         |         |         | 5       |         |         | 1       | 1       |         |         | 4       |
|  | Males.....   |                 |         |         |         |         |         | 1       | 2       |         | 1       |         | 3       |         |         |         | 3       |
| Hats, caps and gents' furnishing goods.. | Females..... |                 |         |         |         |         |         | 3       |         |         | 2       |         | 7       |         |         |         | 5       |
|  | Males.....   |                 |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Hedge growers.....                       | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Hotels, boarding-houses and restaurants  | Females..... |                 | 1       | 1       |         |         |         | 4       |         |         | 9       |         | 52      | 38      | 11      |         | 500     |
|  | Males.....   |                 |         |         |         |         |         |         | 3       |         | 2       |         | 6       | 45      |         |         | 61      |
| House moving.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Ice dealers.....                         | Males.....   |                 |         |         |         |         |         | 1       |         |         | 5       | 1       | 5       |         |         |         | 8       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       |
| Jewelry.....                             | Males.....   |                 |         |         |         |         |         | 4       | 4       |         |         |         |         | 11      | 1       |         | 6       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         | 5       |         |         |         |         |
| Junk and rag stores.....                 | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         | 29      |         |         |         |         |         |         |         |         |         |
| Laundries.....                           | Males.....   |                 |         | 1       |         |         |         | 1       | 4       |         | 10      |         | 8       | 67      | 3       | 1       | 111     |
|  | Females..... |                 | 1       |         |         |         |         | 1       |         |         | 5       |         |         | 2       | 2       |         | 12      |
| Leather and findings.....                | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         | 1       | 1       |         |         |
| Lime and hair.....                       | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Liquor stores, wholesale.....            | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Livery stables.....                      | Females..... |                 |         | 1       |         |         |         | 3       | 2       |         | 3       | 3       | 4       | 31      | 4       | 8       | 23      |
|  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Lumber inspectors.....                   | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Lumber yards.....                        | Males.....   |                 |         |         |         |         |         | 3       | 8       |         | 13      |         |         | 20      | 1       |         | 39      |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Machinery.....                           | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         | 1       |         |         | 1       |
|  | Females..... |                 |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         | 1       |
| Mantels and grates.....                  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Markets.....                             | Males.....   |                 |         |         |         |         |         |         |         |         | 3       |         |         |         |         |         | 4       |
|  | Females..... |                 |         |         |         |         |         |         |         |         |         |         |         | 2       |         |         | 3       |
| Meat markets.....                        | Males.....   |                 | 5       | 3       |         |         |         | 1       | 2       |         | 4       |         | 6       | 16      | 4       |         | 36      |
|  | Females..... | 5               | 3       | 8       |         | 6       |         | 25      | 11      |         | 31      |         | 8       | 43      | 6       |         | 43      |
| Millinery.....                           | Males.....   |                 |         |         |         |         |         | 3       | 2       |         |         |         | 1       | 4       |         |         | 2       |
| Mill machinery.....                      | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |





TABLE NO. 36.—Continued.

| Class of Business.                      | Sex.         | Wages per Week |          |          |          |          |          |          |          |          |          |          |          |
|---|--------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   |              | \$13 50.       | \$13 75. | \$14 00. | \$14 25. | \$14 50. | \$14 75. | \$15 00. | \$15 50. | \$16 00. | \$16 15. | \$16 25. | \$16 50. |
| Electric light companies.....           | Males.....   |                |          | 3        |          |          |          | 9        |          |          |          |          |          |
| Engraving.....                          | Males.....   |                |          | 1        |          |          |          | 5        |          |          |          |          |          |
| Express companies.....                  | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Males.....   | 2              |          | 1        |          |          |          | 7        |          | 1        |          | 7        | 5        |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Feathers.....                           | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Fire departments.....                   | Males.....   |                |          | 4        |          | 8        |          |          |          |          |          |          |          |
| Fishing.....                            | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Fish markets.....                       | Males.....   |                |          |          |          |          |          | 4        |          |          |          |          |          |
| Flooring dealers.....                   | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Florists.....                           | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Flour and feed.....                     | Males.....   |                |          | 1        |          |          |          |          |          |          |          |          |          |
| Forwarding docks.....                   | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Fruit, confectionery and canned goods   | Males.....   |                |          |          |          |          |          | 1        | 1        |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Furniture and undertaking.....          | Males.....   | 5              |          | 4        |          |          |          | 26       |          | 1        |          | 1        |          |
| Gas companies.....                      | Males.....   |                |          |          |          |          |          | 1        |          |          |          |          |          |
| Gas fixtures.....                       | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          | 1        |          |          |          |          |
| General stores.....                     | Males.....   | 10             | 4        |          | 2        | 1        |          | 20       | 1        | 2        |          | 1        | 2        |
|   | Females..... |                |          |          |          |          |          |          |          | 3        |          |          |          |
| Glass dealers.....                      | Males.....   |                |          | 1        |          |          |          | 2        |          |          |          |          |          |
| Gold and silver plating.....            | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Grain elevators.....                    | Males.....   | 3              |          | 1        |          |          |          | 2        |          |          |          |          | 1        |
|   | Females..... | 1              |          |          |          |          |          |          |          |          |          |          |          |
| Groceries.....                          | Males.....   | 5              | 1        | 8        |          | 1        |          | 53       | 4        | 4        |          |          | 1        |
|   | Females..... |                |          | 3        |          |          |          |          |          |          |          |          |          |
| Hack and 'bus lines.....                | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Hair goods.....                         | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Hardware, stoves and tinware.....       | Males.....   | 20             |          | 6        |          | 6        |          | 24       | 4        | 5        |          |          | 18       |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Harness and trunks.....                 | Males.....   | 4              |          | 1        |          |          |          | 7        |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Hats, caps and gent's' furnishing goods | Males.....   |                |          | 2        |          |          |          | 6        |          | 1        |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Hedge growers.....                      | Males.....   | 1              |          |          |          |          |          |          |          |          |          |          |          |
| Hotels, boarding-houses and restau- (   | Females..... | 14             |          |          |          |          |          |          |          |          |          |          |          |
| rants.....                              | Males.....   | 39             |          |          |          | 2        | 1        | 1        | 22       | 10       | 2        |          | 2        |
| House moving.....                       | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Ice dealers.....                        | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Jewelry.....                            | Males.....   |                |          | 3        |          |          |          | 4        |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Junk and rag stores.....                | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Laundries.....                          | Males.....   |                |          |          |          |          |          | 13       |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Leather and findings.....               | Males.....   |                |          | 4        |          |          |          | 2        |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Lime and hair.....                      | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
| Liquor stores, wholesale.....           | Males.....   |                |          |          |          |          |          | 4        |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Livery stables.....                     | Males.....   | 3              |          |          |          |          |          | 4        |          | 1        |          |          |          |
| Lumber inspectors.....                  | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Lumber yards.....                       | Males.....   | 8              |          |          | 2        |          |          | 17       |          |          |          |          | 2        |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Machinery.....                          | Males.....   |                |          | 1        |          |          |          | 1        |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          | 2        |          |          |          |          |          |
| Mantels and grates.....                 | Males.....   |                |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Markets.....                            | Males.....   | 6              |          |          |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Meat markets.....                       | Males.....   | 1              | 3        | 4        |          |          |          | 13       | 5        | 1        |          | 1        |          |
|   | Females..... |                |          |          |          |          |          | 7        |          | 1        |          |          |          |
| Millinery.....                          | Males.....   |                |          | 2        |          |          |          |          |          |          |          |          |          |
|   | Females..... |                |          |          |          |          |          |          |          |          |          |          |          |
| Mill machinery.....                     | Males.....   |                |          |          |          |          |          | 1        |          |          |          |          |          |

# WAGES AND WAGE-EARNERS.

377

TABLE No. 36.—Continued.

| Wages per Week. |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | Total Number. | Average weekly wages. |
|-----------------|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------|-----------------------|
| \$17 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 97            | \$11 77 +             |
| \$17 25.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 12            | 11 41 +               |
| \$17 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 12 50                 |
| \$18 00.        |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  | 250           | 15 88 +               |
| \$18 50.        |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 3 00                  |
| \$18 75.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 10 80                 |
| \$19 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 238           | 13 77 +               |
| \$19 25.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 36            | 8 59 +                |
| \$19 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 12 00                 |
| \$20 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 97            | 4 00                  |
| \$20 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 5 00                  |
| \$21 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 17            | 8 10                  |
| \$21 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 19            | 13 23 +               |
| \$22 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 70            | 5 36 +                |
| \$22 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 4             | 10 33                 |
| \$23 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 332           | 4 37 +                |
| \$23 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 95            | 10 23 +               |
| \$24 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 4             | 10 51 +               |
| \$24 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 32            | 21 00                 |
| \$25 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 259           | 6 67 +                |
| \$25 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 18            | 11 87 +               |
| \$26 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 13 33 +               |
| \$26 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 27            | 4 62 +                |
| \$27 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 115           | 8 44 +                |
| \$27 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 63            | 9 41 +                |
| \$28 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1,261         | 5 59 +                |
| \$28 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 148           | 9 66 +                |
| \$29 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 8 61 +                |
| \$29 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 18            | 5 00                  |
| \$30 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 817           | 6 91 +                |
| \$30 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 12 14 +               |
| \$31 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 160           | 6 50                  |
| \$31 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 13            | 10 34 +               |
| \$32 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 79            | 5 92 +                |
| \$32 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 26            | 11 10 +               |
| \$33 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1,664         | 19 50 +               |
| \$33 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 806           | 6 42 +                |
| \$34 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 4             | 9 60 +                |
| \$34 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 88            | 8 75 +                |
| \$35 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 9 51 +                |
| \$35 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 119           | 6 50                  |
| \$36 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 34            | 11 89                 |
| \$36 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 15            | 3 22                  |
| \$37 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 246           | 9 31 +                |
| \$37 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 56            | 5 77 +                |
| \$38 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 39            | 8 79 +                |
| \$38 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 9 00                  |
| \$39 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 12 00                 |
| \$39 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 12            | 12 00                 |
| \$40 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 20            | 9 06 +                |
| \$40 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 20 08 +               |
| \$41 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 466           | 5 50                  |
| \$41 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 31            | 7 24 +                |
| \$42 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 17 69 +               |
| \$42 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 700           | 7 00                  |
| \$43 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 8 65 +                |
| \$43 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 10            | 13 06 +               |
| \$44 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 3             | 9 32 +                |
| \$44 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 29            | 5 16 +                |
| \$45 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 9 26 +                |
| \$45 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 456           | 5 81 +                |
| \$46 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 291           | 9 15 +                |
| \$46 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 46            | 6 26 +                |
| \$47 00.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 7             | 11 14 +               |
| \$47 50.        |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 11 46 +               |

TABLE No. 36.—Continued.

| Class of Business.                          | Sex.         | Wages per Week. |         |         |         |         |         |         |         |         |         |         |
|---|--------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|   |              | \$1 00.         | \$1 50. | \$2 00. | \$2 25. | \$2 50. | \$3 00. | \$3 50. | \$4 00. | \$4 50. | \$5 00. | \$5 75. |
| Models .....                                | Males.....   |                 |         | 1       |         |         |         |         | 1       |         |         | 2       |
|   | Females..... |                 |         |         |         |         | 1       |         | 2       | 1       |         | 1       |
| Musical instruments.....                    | Males.....   |                 |         |         |         |         | 3       |         |         |         |         | 1       |
|   | Females..... |                 |         |         |         |         | 1       | 1       |         |         |         |         |
| News depots.....                            | Males.....   |                 |         |         |         |         |         |         | 1       |         | 1       |         |
|   | Females..... | 1               | 11      |         |         | 12      | 6       |         | 34      | 4       | 33      | 19      |
| Notions and fancy goods.....                | Males.....   |                 | 1       |         |         | 5       | 1       |         | 1       | 5       | 1       | 12      |
|   | Females..... |                 |         |         |         | 1       |         |         | 1       |         | 3       | 5       |
| Offices.....                                | Males.....   |                 |         |         |         | 1       |         |         |         |         | 2       | 5       |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         | 2       |
| Oils.....                                   | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         | 1       |         |         |         |
| Painting, paper hanging and decorating..... | Males.....   |                 |         | 2       |         | 3       |         |         |         |         | 2       | 1       |
|   | Females..... |                 | 1       |         |         |         |         |         |         |         |         | 8       |
| Paints and oils.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         | 3       | 1       | 2       |         |
| Paper dealers.....                          | Males.....   |                 |         |         |         |         |         |         | 1       |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         | 1       | 1       | 1       |
| Paper patterns.....                         | Males.....   |                 |         |         |         |         |         |         |         |         |         | 2       |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Peddlers.....                               | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 | 1       |         |         | 2       |         |         | 2       | 1       | 4       | 7       |
| Photographers.....                          | Males.....   |                 |         |         |         |         | 1       |         |         |         | 3       | 5       |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 2       | 3       |
| Pictures and picture frames.....            | Males.....   |                 |         |         |         |         | 1       |         |         |         |         | 3       |
| Plasterers and masons.....                  | Males.....   |                 |         |         |         |         |         |         |         |         | 3       | 1       |
| Plumbing and gas fitting.....               | Males.....   |                 |         |         |         | 5       | 27      | 5       |         | 26      | 3       | 17      |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 2       | 2       |
| Pork and meat packing.....                  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 2       |         |
| Postoffices.....                            | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 | 2       |         |         | 1       | 7       | 1       | 4       | 5       | 19      | 23      |
| Printing, publishing and binding.....       | Males.....   | 1               | 2       | 7       | 1       | 5       | 26      | 8       | 2       | 4       | 34      | 16      |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 39      | 3       |
| Pumps and windmills.....                    | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         | 2       |         |         |         | 1       | 1       |
| Railroading.....                            | Males.....   |                 |         |         |         |         | 1       |         |         |         | 6       | 4       |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 2       |         |
| Roofing.....                                | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
| Rubber goods.....                           | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
| Safes and locks.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         | 2       |
| Sanitariums.....                            | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Second-hand stores.....                     | Males.....   |                 |         |         |         |         | 1       |         | 1       |         |         | 1       |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Seeds.....                                  | Males.....   |                 |         |         |         |         | 18      | 76      | 65      |         | 49      | 6       |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 16      | 8       |
|   | Males.....   |                 |         |         |         |         |         |         |         |         | 3       | 3       |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Sewing machines.....                        | Males.....   |                 | 1       |         |         |         |         |         | 1       |         | 2       |         |
|   | Females..... |                 | 1       |         |         |         |         |         |         |         |         |         |
| Sidewalk building.....                      | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
| Sporting goods.....                         | Males.....   |                 |         |         |         |         |         |         |         |         | 1       |         |
| Stencils and stamps.....                    | Males.....   |                 |         |         |         |         |         |         |         |         | 1       |         |
| Stone and monuments.....                    | Males.....   |                 |         |         |         |         | 1       |         |         |         | 1       | 6       |
| Storage companies.....                      | Males.....   |                 |         |         |         |         |         |         |         |         | 1       |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Street railways.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         | 2       |         |         |
| Subscription agencies.....                  | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... | 1               | 2       |         |         | 1       | 8       |         | 4       | 4       | 33      | 96      |
| Tailoring.....                              | Males.....   |                 |         |         |         |         | 2       | 1       |         | 4       | 9       | 27      |
|   | Females..... |                 |         |         |         |         | 1       |         |         |         | 1       |         |
| Tea, coffee and spices.....                 | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         | 1       | 1       |         | 6       | 3       | 1       |
| Telegraph and telephone companies.....      | Males.....   |                 |         |         |         |         | 1       | 12      |         | 6       | 3       | 8       |
|   | Females..... |                 |         |         |         |         | 1       | 1       | 2       | 7       | 6       | 1       |
| Telegraph messengers.....                   | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Train newsboys.....                         | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Vessels and tugs.....                       | Males.....   |                 |         |         |         |         |         |         | 1       | 3       |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 2       |         |
| Vessel supplies.....                        | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         | 3       |         |
| Woodenware.....                             | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         | 1       |         |         |         |         |         |
| Woolens.....                                | Males.....   |                 |         |         |         |         |         |         |         |         |         |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         |         |
| Wool, hides and pelts.....                  | Males.....   |                 |         |         |         |         |         |         |         |         | 1       |         |
|   | Females..... |                 |         |         |         |         |         |         |         |         |         | 5       |

## 379

**Wages Per Week.**

| \$25. | \$50. | \$60. | \$90. | \$700. | \$735. | \$900. | \$810. | \$825. | \$840. | \$850. | \$875. | \$900. | \$925. | \$950. | \$960. | \$975. | \$1000. | \$1040. | \$1050. | \$1080. | \$1100. | \$1125. | \$1140. | \$1150. | \$1200. | \$1225. | \$1250. | \$1270. | \$1290. | \$1300. | \$1325. | \$1350. |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1     | 1     |       | 1     | 1      | 2      | 6      | 10     | 3      | 3      | 1      | 3      | 6      | 1      | 20     | 6      | 1      | 20      | 1       | 1       | 6       | 3       |         | 2       | 1       | 4       | 12      | 5       | 1       |         |         |         | 1       |
|       |       |       | 1     | 2      | 4      | 3      | 3      | 1      | 4      |        | 1      | 1      | 9      | 9      | 4      | 4      | 4       | 57      | 1       | 3       | 3       |         | 2       | 2       | 2       | 2       | 4       | 1       |         |         |         |         |
|       | 1     |       | 1     | 1      | 1      | 1      | 6      | 1      | 1      |        | 1      | 1      | 5      | 9      | 9      | 7      | 9       | 6       | 6       | 1       | 1       |         |         | 147     | 13      | 5       | 1       |         |         | 1       | 5       |         |
|       |       | 1     | 1     | 1      |        | 4      | 4      | 1      |        |        | 38     | 50     | 7      | 7      | 7      | 7      | 15      | 3       |         |         |         |         |         | 60      | 32      | 60      | 3       |         |         | 31      |         |         |
|       |       | 1     | 1     | 2      |        | 1      | 2      | 8      |        |        | 11     | 29     |        | 48     | 1      | 5      | 1       | 1       | 5       |         | 5       | 5       | 2       | 143     | 5       | 10      | 3       |         |         | 1       | 23      |         |
| 1     |       |       | 38    | 45     | 6      | 183    | 21     | 26     | 6      | 5      | 65     | 6      | 3      | 2      | 1      | 73     | 6       | 75      | 2       | 10      | 1       | 1       | 7       | 67      | 6       | 24      | 34      | 1       |         | 8       | 1       | 23      |
|       |       |       |       | 1      |        | 25     |        |        |        |        | 13     |        | 1      |        |        | 1      | 1       | 6       | 2       | 2       | 1       |         |         | 1       | 1       | 34      |         |         |         |         |         |         |
|       | 6     |       |       | 6      |        |        | 2      |        | 2      |        | 3      |        |        |        |        | 3      | 1       | 1       | 1       | 3       |         |         | 5       | 4       | 4       |         | 2       |         |         | 1       |         |         |
|       |       |       |       | 7      |        |        | 3      |        |        |        | 2      | 7      |        |        |        | 2      | 9       |         |         |         |         |         |         | 15      | 2       | 2       | 3       | 1       |         |         |         | 5       |
|       |       |       |       | 4      |        | 6      | 1      |        |        |        | 1      | 1      | 1      | 1      | 1      | 5      | 4       | 1       | 13      | 3       | 1       |         |         | 2       | 2       | 17      |         |         |         |         |         |         |
|       |       |       | 4     | 11     |        | 19     | 15     |        | 2      | 2      | 24     | 12     | 9      | 7      | 14     | 6      | 6       | 61      | 3       | 3       |         |         |         | 28      | 15      | 2       | 1       |         |         |         |         | 1       |
|       |       |       |       | 7      |        | 2      | 13     |        | 2      | 1      | 20     | 30     |        | 1      | 43     | 4      | 10      | 1       | 1       | 3       | 5       | 2       |         | 10      | 1       | 98      | 5       |         |         |         |         | 4       |
| 2     |       |       | 8     | 2      |        | 1      | 9      |        | 1      |        | 3      | 2      |        | 1      | 6      | 11     | 6       | 6       | 1       | 2       |         | 1       | 10      | 15      | 1       | 5       | 2       | 1       | 3       | 4       | 1       | 2       |
|       |       |       |       |        |        |        | 15     |        |        |        | 95     | 28     | 44     | 11     | 6      | 16     |         | 5       |         | 43      | 1       | 23      |         | 3       | 27      |         |         |         |         |         |         | 9       |
|       |       |       |       | 1      |        |        | 1      |        |        | 2      |        |        |        |        | 9      |        |         | 1       |         |         |         |         |         | 4       |         |         |         |         |         |         |         | 2       |
|       |       |       |       | 4      |        | 9      | 2      | 1      |        | 5      | 16     |        | 2      |        | 9      |        | 3       |         |         |         |         |         |         | 3       | 1       |         |         |         |         |         |         |         |

TABLE NO. 36.—Continued.

| Class of Business.                           | Sex.          | Wages Per Week. |          |          |          |          |          |          |          |          |          |          |          |          |          |
|--|---------------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|  |               | \$13 75.        | \$14 00. | \$14 25. | \$14 50. | \$14 75. | \$15 00. | \$15 50. | \$16 00. | \$16 15. | \$16 25. | \$16 50. | \$17 00. | \$17 50. | \$18 00. |
| Models .....                                 | Males .....   |                 |          |          |          |          | 1        |          |          |          |          |          |          | 1        |          |
| Musical instruments .....                    | Females ..... |                 |          |          |          |          | 1        |          |          |          |          |          |          |          |          |
| News depots .....                            | Males .....   |                 |          |          |          |          | 15       |          | 3        |          |          |          |          | 1        | 6        |
| Notions and fancy goods .....                | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Offices .....                                | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Offices .....                                | Females ..... | 2               |          |          |          |          | 7        |          |          |          |          |          |          |          |          |
| Offices .....                                | Males .....   | 1               |          |          |          |          | 1        |          |          |          |          |          |          |          |          |
| Oils .....                                   | Females ..... | 1               |          |          |          |          | 10       |          |          |          | 1        | 2        |          | 8        | 1        |
| Painting, paper hanging and decorating ..... | Males .....   |                 |          |          |          |          | 4        |          |          |          |          | 4        | 1        |          |          |
| Paints and oils .....                        | Females ..... |                 |          |          |          |          | 76       |          |          |          | 22       |          |          | 20       |          |
| Paper dealers .....                          | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Paper patterns .....                         | Females ..... | 1               |          |          |          |          | 10       |          | 1        |          |          |          |          | 1        |          |
| Peddlers .....                               | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Photographing .....                          | Females ..... | 2               |          | 1        | 1        |          | 2        |          | 1        |          |          |          |          | 2        |          |
| Pictures and picture frames .....            | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Plasterers and masons .....                  | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Plumbing and gas fitting .....               | Males .....   | 1               |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Pork and meat packing .....                  | Females ..... |                 |          |          |          |          | 16       |          |          |          |          |          |          | 6        |          |
| Postoffices .....                            | Males .....   |                 |          |          |          |          | 53       |          | 1        |          | 14       | 4        |          | 32       |          |
| Printing, publishing and binding .....       | Females ..... |                 |          |          |          |          | 9        |          | 1        |          |          |          |          |          |          |
| Pumps and windmills .....                    | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Railroading .....                            | Females ..... |                 |          |          |          |          | 1        |          |          |          |          |          |          |          |          |
| Roofing .....                                | Males .....   | 7               | 72       |          |          |          | 187      | 13       | 18       |          | 19       | 16       | 15       |          | 38       |
| Rubber goods .....                           | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Safes and locks .....                        | Males .....   | 4               | 11       |          | 4        |          | 44       | 4        | 23       | 3        | 4        | 13       |          | 1        | 21       |
| Sanitariums .....                            | Females ..... |                 |          |          |          |          | 8        |          | 2        |          | 3        |          |          |          |          |
| Second-hand stores .....                     | Males .....   |                 |          |          |          |          | 2        |          |          |          |          |          |          |          |          |
| Seeds .....                                  | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Sewing machines .....                        | Males .....   | 11              |          |          |          |          | 11       |          | 9        |          | 2        | 4        |          |          |          |
| Sidewalk building .....                      | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Sporting goods .....                         | Males .....   |                 |          |          |          |          | 9        |          |          |          |          |          |          | 1        |          |
| Stencils and stamps .....                    | Females ..... |                 |          |          |          |          | 1        |          |          |          |          |          |          | 1        |          |
| Stone and monuments .....                    | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Storage companies .....                      | Females ..... | 4               |          |          |          |          | 12       |          |          |          | 4        |          |          | 33       |          |
| Street railways .....                        | Males .....   |                 |          |          |          |          | 1        |          |          |          |          |          |          |          |          |
| Subscription agencies .....                  | Females ..... | 1               |          | 1        |          |          | 3        |          |          |          | 1        | 1        |          |          |          |
| Tailoring .....                              | Males .....   | 7               |          |          |          |          |          |          | 5        |          |          |          |          | 5        |          |
| Tea, coffee and spices .....                 | Females ..... | 17              |          |          |          |          | 90       |          |          |          | 7        | 12       |          | 32       |          |
| Telegraph and telephone companies .....      | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Telegraph messengers .....                   | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Train newsboys .....                         | Males .....   |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Vessels and tugs .....                       | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Vessel supplies .....                        | Males .....   | 2               | 2        |          | 1        |          | 5        | 9        | 7        |          | 4        |          | 2        | 8        | 31       |
| Woodenware .....                             | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Woolens .....                                | Males .....   | 3               |          |          |          |          | 3        |          |          |          |          |          | 1        | 2        |          |
| Wool, hides and pelts .....                  | Females ..... |                 |          |          |          |          |          |          |          |          |          |          |          |          |          |
|  | Males .....   |                 |          |          |          |          | 7        |          |          |          |          |          |          |          |          |
|  | Males .....   |                 |          |          |          |          | 2        |          |          |          |          |          |          |          |          |

## WAGES AND WAGE-EARNERS.

381

TABLE No. 36.—Continued.

| Wages Per Week. |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | Total number. | Average weekly wages. |
|-----------------|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|---------------|-----------------------|
| \$19 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 11            | \$10 04 +             |
| \$20 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 6 25                  |
| \$20 88.        |  | 2 |   |  |  |  |  |  |  |  |  |  |  |  |  | 69            | 14 43 +               |
| \$21 00.        |  |   | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 3             | 5 50                  |
| \$21 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 6             | 7 50                  |
| \$22 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 139           | 4 80 +                |
| \$22 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 119           | 8 90 +                |
| \$23 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 21            | 7 71 +                |
| \$23 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 79            | 16 69 +               |
| \$24 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 45            | 11 64                 |
| \$24 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 12            | 6 50                  |
| \$25 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 488           | 13 62 +               |
| \$25 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 2 00                  |
| \$26 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 58            | 11 53 +               |
| \$26 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 5 40                  |
| \$27 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 41            | 11 87 +               |
| \$27 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 4             | 6 75                  |
| \$28 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 10            | 8 80                  |
| \$28 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 25            | 5 92                  |
| \$29 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 30            | 11 09 +               |
| \$29 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 31            | 10 22 +               |
| \$30 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 143           | 13 05 +               |
| \$30 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 406           | 10 51 +               |
| \$31 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 7 00                  |
| \$31 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 155           | 10 50                 |
| \$32 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 6 80                  |
| \$32 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 6             | 8 50                  |
| \$33 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 108           | 6 48 +                |
| \$33 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1,134         | 11 73 +               |
| \$34 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 7             | 8 57 +                |
| \$34 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 7             | 6 62 +                |
| \$35 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1,137         | 10 53 +               |
| \$35 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 71            | 10 02 +               |
| \$36 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 17 25                 |
| \$36 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 15 00                 |
| \$37 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 6 00                  |
| \$37 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 8 20                  |
| \$38 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 18            | 9 60                  |
| \$38 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 273           | 3 97 +                |
| \$39 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 115           | 13 32 +               |
| \$39 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 11            | 6 72 +                |
| \$40 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 56            | 10 76 +               |
| \$40 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 8             | 10 12 +               |
| \$41 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 11            | 9 90 +                |
| \$41 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 3             | 9 66 +                |
| \$42 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 162           | 12 75                 |
| \$42 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 28            | 11 35 +               |
| \$43 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 9 50 +                |
| \$43 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 237           | 10 26 +               |
| \$44 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 44            | 15 11 +               |
| \$44 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 205           | 6 21 +                |
| \$45 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 455           | 14 74 +               |
| \$45 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 4 30 +                |
| \$46 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 84            | 10 42 +               |
| \$46 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 58            | 5 59 +                |
| \$47 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 102           | 11 57 +               |
| \$47 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 5             | 8 85 +                |
| \$48 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 15            | 8 00 +                |
| \$48 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 2             | 8 10 +                |
| \$49 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 497           | 11 98 +               |
| \$49 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 4             | 6 00                  |
| \$50 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 36            | 12 45 +               |
| \$50 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 1             | 10 50                 |
| \$51 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 3             | 5 16                  |
| \$51 50.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 7             | 15 00                 |
| \$52 00.        |  |   |   |  |  |  |  |  |  |  |  |  |  |  |  | 67            | 9 90 +                |

TABLE NO. 37.—Showing the Number of Male and Female Employés over 16 years of Age receiving each given rate of Wage and the Average Wages per week paid to Male and Female Employés in the business houses (other than manufacturing) of, the 51 Cities and Towns canvassed.

| No.  | Sex.     | Wages. | No.  | Sex.     | Wages. | No.  | Sex.     | Wages.  | No. | Sex.  | Wages.  |
|------|----------|--------|------|----------|--------|------|----------|---------|-----|-------|---------|
| 10   | Females. | \$1 00 | 4    | Males    | \$7 70 | 46   | Males    | \$13 25 | 3   | Males | \$25 50 |
| 5    | Males    |        | 2    | Females. | 7 75   | 16   | Females. | 13 50   | 10  | Males | 26 00   |
| 7    | Females. | 1 50   | 15   | Males    | 7 80   | 410  | Males    | 13 75   | 9   | Males | 27 00   |
| 16   | Males    |        | 65   | Males    | 7 85   | 19   | Males    | 13 85   | 4   | Males | 28 00   |
| 43   | Females. | 2 00   | 5    | Males    | 8 00   | 6    | Males    | 14 00   | 7   | Males | 28 50   |
| 57   | Males    |        | 132  | Females. | 8 10   | 2    | Females. | 14 25   | 2   | Males | 28 85   |
| 4    | Males    | 2 25   | 777  | Males    | 8 25   | 288  | Males    | 14 50   | 4   | Males | 29 00   |
| 32   | Females. | 2 50   | 1    | Female.. | 8 40   | 7    | Males    | 15 00   | 63  | Males | 30 00   |
| 50   | Males    |        | 14   | Males    | 8 50   | 34   | Males    | 15 50   | 4   | Males | 31 00   |
| 1    | Female.. | 2 75   | 1    | Female.. | 8 75   | 3    | Males    | 16 00   | 7   | Males | 31 25   |
| 1    | Male     |        | 49   | Males    | 9 00   | 15   | Females. | 16 15   | 5   | Males | 31 50   |
| 245  | Females. | 3 00   | 46   | Males    | 9 25   | 1302 | Males    | 17 00   | 6   | Males | 33 00   |
| 215  | Males    |        | 45   | Females. | 9 50   | 77   | Males    | 17 25   | 2   | Males | 34 00   |
| 128  | Females. | 3 50   | 475  | Males    | 9 75   | 1    | Female.. | 17 30   | 4   | Males | 34 60   |
| 65   | Males    |        | 136  | Males    | 10 00  | 2    | Females. | 17 50   | 16  | Males | 35 00   |
| 3    | Females. | 3 60   | 88   | Females. | 10 40  | 145  | Males    | 18 00   | 5   | Males | 36 00   |
| 10   | Males    |        | 2301 | Males    | 11 00  | 6    | Males    | 18 15   | 1   | Male  | 37 00   |
| 19   | Males    | 3 75   | 2    | Females. | 11 25  | 38   | Males    | 18 25   | 11  | Males | 37 50   |
| 246  | Females. | 4 00   | 49   | Males    | 9 60   | 133  | Males    | 17 00   | 1   | Male  | 37 75   |
| 200  | Males    |        | 37   | Females. | 9 75   | 1    | Female.. | 17 25   | 4   | Males | 38 00   |
| 6    | Females. | 4 15   | 483  | Males    | 10 00  | 79   | Males    | 18 00   | 4   | Males | 38 50   |
| 2    | Males    |        | 62   | Males    | 10 40  | 48   | Males    | 18 50   | 1   | Male  | 39 00   |
| 1    | Female.. | 4 25   | 6    | Females. | 10 50  | 1    | Female.. | 18 00   | 17  | Males | 40 00   |
| 24   | Males    |        | 74   | Males    | 10 80  | 624  | Males    | 18 50   | 1   | Male  | 40 50   |
| 87   | Females. | 4 50   | 90   | Females. | 11 00  | 36   | Males    | 18 75   | 2   | Males | 41 00   |
| 96   | Males    |        | 1741 | Males    | 11 25  | 35   | Males    | 19 00   | 2   | Males | 41 67   |
| 472  | Females. | 5 00   | 128  | Males    | 11 40  | 35   | Males    | 19 25   | 5   | Males | 42 00   |
| 449  | Males    |        | 9    | Females. | 11 50  | 24   | Males    | 19 50   | 1   | Male  | 43 75   |
| 380  | Females. | 5 50   | 674  | Males    | 12 25  | 1    | Female.. | 20 00   | 1   | Male  | 44 00   |
| 96   | Males    |        | 62   | Males    | 12 50  | 16   | Males    | 20 75   | 2   | Males | 45 00   |
| 25   | Females. | 5 75   | 6    | Females. | 12 00  | 4    | Males    | 20 88   | 1   | Male  | 45 00   |
| 20   | Males    |        | 294  | Males    | 12 25  | 1    | Female.. | 21 00   | 1   | Male  | 47 00   |
| 1077 | Females. | 6 00   | 1    | Female.. | 12 50  | 220  | Males    | 21 50   | 1   | Male  | 48 00   |
| 1036 | Males    |        | 45   | Males    | 12 60  | 4    | Males    | 22 00   | 3   | Males | 50 00   |
| 39   | Females. | 6 25   | 10   | Female.. | 12 70  | 1    | Female.. | 22 50   | 3   | Males | 52 00   |
| 33   | Males    |        | 8    | Males    | 12 80  | 220  | Males    | 23 00   | 1   | Male  | 54 00   |
| 431  | Females. | 6 50   | 39   | Females. | 12 96  | 4    | Males    | 23 05   | 1   | Male  | 55 00   |
| 168  | Males    |        | 2221 | Males    | 13 00  | 50   | Males    | 23 50   | 2   | Males | 56 00   |
| 4    | Females. | 6 60   | 74   | Males    | 12 50  | 3    | Males    | 24 00   | 2   | Males | 57 50   |
| 38   | Males    |        | 8    | Females. | 12 60  | 5    | Males    | 24 50   | 4   | Males | 57 70   |
| 1    | Female.. | 6 75   | 179  | Males    | 12 70  | 1    | Female.. | 25 00   | 6   | Males | 60 00   |
| 34   | Males    |        | 1    | Female.. | 13 00  | 1    | Male     | 25 00   | 1   | Male  | 62 50   |
| 8    | Females. | 6 90   | 39   | Females. | 12 25  | 60   | Males    | 24 00   | 1   | Male  | 68 75   |
| 163  | Males    |        | 2221 | Males    | 12 50  | 1    | Female.. | 25 00   | 1   | Male  | 80 00   |
| 207  | Females. | 7 00   | 74   | Males    | 12 60  | 189  | Males    |         |     |       |         |
| 604  | Males    |        | 8    | Females. | 12 70  |      |          |         |     |       |         |
| 70   | Males    | 7 20   | 412  | Males    | 12 80  |      |          |         |     |       |         |
| 14   | Females. | 7 25   | 18   | Males    | 12 96  |      |          |         |     |       |         |
| 84   | Males    |        | 5    | Males    | 13 00  |      |          |         |     |       |         |
| 10   | Males    | 7 38   | 20   | Males    |        |      |          |         |     |       |         |
| 106  | Females. | 7 50   | 1    | Female.. |        |      |          |         |     |       |         |
| 1630 | Males    |        | 132  | Males    |        |      |          |         |     |       |         |

|                           |        |                                      |          |
|---------------------------|--------|--------------------------------------|----------|
| Total number Males.....   | 20,378 | Average weekly wages of Males.....   | \$10 84+ |
| Total number Females..... | 4,091  | Average weekly wages of Females..... | 5 96+    |

TABLE NO. 88.—*Showing, by Occupation or Class of Business, the Number of Male and Female Employes Sixteen Years of Age and under receiving each given rate of wage and the Average Wages per week paid in each Class of Business (other than manufacturing) in fifty-one Cities and Towns reported by Special Canvassers. (For list of places canvassed, see page 277.)*

| Class of Industry.                           | Sex. | Wages per Day. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | Total Number. | Average Daily Wages. |         |         |         |         |          |          |          |        |
|--|------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|----------------------|---------|---------|---------|---------|----------|----------|----------|--------|
|  |      | \$0.25.        | \$0.75. | \$1.00. | \$1.25. | \$1.50. | \$1.75. | \$2.00. | \$2.25. | \$2.50. | \$2.60. | \$3.00. | \$3.45. | \$3.50. | \$3.60. | \$3.75. | \$4.00. | \$4.25. | \$4.50. | \$4.75. | \$5.00. | \$5.25. | \$5.50. | \$5.75. | \$6.00. | \$6.25. | \$6.50. | \$6.75. | \$7.00. |               |                      | \$7.50. | \$8.00. | \$8.50. | \$9.00. | \$10.00. | \$10.50. | \$12.00. |        |
|  |      |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          |          |        |
| Total.                                       | T.   | 2              | 3       | 24      | 48      | 45      | 5       | 142     | 3       | 112     | 3       | 183     | 8       | 38      | 3       | 12      | 95      | 1       | 35      | 11      | 61      | 8       | 1       | 18      | 5       | 55      | 5       | 11      | 4       | 7             | 10                   | 2       | 3       | 1       | 1       | 1        | 968      | \$3.36+  |        |
|  | F.   |                |         | 1       |         | 3       | 1       | 34      |         | 15      |         |         | 8       |         |         |         | 6       |         | 8       | 2       | 6       |         |         | 4       |         |         |         |         |         |               |                      |         |         |         |         |          |          | 101      | 3.33+  |
|  | M.   | 2              | 3       | 23      | 48      | 42      | 4       | 108     | 3       | 97      | 3       | 175     | 8       | 37      | 3       | 12      | 89      | 1       | 27      | 9       | 55      | 7       | 1       | 14      | 5       | 49      | 5       | 7       | 4       | 6             | 10                   | 2       | 3       | 1       | 1       | 1        | 865      | 3.37+    |        |
| Advertising agencies.....                    | M.   |                |         |         |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | \$3.00 |
| Art stores.....                              | M.   |                |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 2.00   |
| Artists' supplies.....                       | M.   |                |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 2.00   |
| Bakeries.....                                | F.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 4.50   |
|  | M.   |                |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         | 1       | 2       | 1       |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          | 10       | 4.87+    |        |
| Baking powder and extracts.....              | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 2        | 2.00   |
| Bankers and brokers.....                     | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 4.00   |
| Barber shops and bath-rooms.....             | M.   |                |         | 1       |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 10       | 2.45   |
| Blacksmithing and horseshoeing.....          | M.   |                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 3        | 2.16+  |
| Books and stationery.....                    | F.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 2        | 5.00   |
|  | M.   |                |         | 1       |         |         |         |         |         | 4       |         | 3       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 12       | 2.31+  |
| Booming and rafting logs.....                | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 8        | 5.00   |
| Boots and shoes.....                         | F.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 1.50   |
|  | M.   |                |         |         |         |         |         |         |         | 2       |         | 5       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 15       | 2.90   |
| Bottling works.....                          | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 4        | 3.50   |
| Carriages, wagons, etc.....                  | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 1        | 2.00   |
| Cigars and tobacco.....                      | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 4        | 5.00   |
| City laborers and water-works employees..... | M.   |                |         | 1       | 1       |         |         |         |         |         |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 5        | 1.60   |
| Clothing.....                                | M.   |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |          |          | 22       | 3.06+  |



TABLE No. 88.—Continued.

| Class of Industry.                         | Sex.       | Wages per Day. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | Total Number. | Average Daily Wages. |         |         |         |         |         |         |         |         |         |          |          |          |    |       |       |
|--|------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----|-------|-------|
|  |            | \$0.25.        | \$0.75. | \$1.00. | \$1.25. | \$1.50. | \$1.75. | \$2.00. | \$2.25. | \$2.50. | \$2.60. | \$3.00. | \$3.45. | \$3.50. | \$3.75. | \$4.00. | \$4.25. | \$4.50. | \$4.75. | \$5.00. | \$5.25. |               |                      | \$5.50. | \$5.75. | \$6.00. | \$6.25. | \$7.00. | \$7.50. | \$8.00. | \$8.50. | \$9.00. | \$10.00. | \$10.50. | \$12.00. |    |       |       |
| Coal and wood yards.....                   | M.         |                |         |         |         |         |         |         |         | 2       |         | 1       |         |         |         |         |         |         |         | 1       |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          | 4  | 3.43+ |       |
| Commission and produce.....                | { F.<br>M. |                |         |         |         | 1       |         |         |         |         |         | 1       |         |         |         |         |         |         |         | 1       |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          | 1  | 5.00  |       |
| Contractors, carpenters and builders.....  | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 2     | 2.50  |
| Crockery, stone and glassware.....         | M.         |                |         |         |         | 1       |         |         |         | 1       |         | 2       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          | 16 | 5.34+ |       |
| Dairies.....                               | M.         |                |         |         |         |         |         |         |         |         |         | 5       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 8     | 2.93+ |
| Dentists' offices.....                     | M.         |                |         |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 3.00  |
| Dressmaking.....                           | F.         |                |         |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 2.50  |
| Drugs.....                                 | { F.<br>M. |                |         |         |         |         |         | 3       | 1       | 19      |         | 2       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 3.00  |
| Dry goods.....                             | { F.<br>M. |                |         | 1       |         | 14      |         | 20      | 5       | 1       |         | 4       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          | 37 | 2.83+ |       |
| Engraving.....                             | M.         |                |         |         |         |         |         |         |         | 18      |         | 14      |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          | 10 | 2.45  |       |
| Flour and feed.....                        | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 85    | 2.65+ |
| Fruit, confectionery and canned goods..... | { F.<br>M. |                |         | 1       |         |         |         |         |         |         |         | 2       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 4.00  |
| Furniture and undertaking.....             | { F.<br>M. |                |         |         |         | 1       |         | 1       |         | 2       |         | 6       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 6.50  |
| General stores.....                        | { F.<br>M. |                |         |         |         | 2       |         | 2       |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 6.50  |
| Grain elevators.....                       | M.         |                |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 10    | 2.65  |
| Groceries.....                             | { F.<br>M. |                |         | 1       |         | 2       |         | 9       |         | 11      |         | 14      |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 2     | 1.50  |
| Hack and 'bus lines.....                   | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 9     | 2.86+ |
| Hair goods.....                            | F.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 1.00  |
| Hardware, stoves and tinware.....          | M.         |                |         |         |         | 2       |         | 1       |         | 2       |         | 6       |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 1.00  |
|  |            |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 1.00  |
|  |            |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 78    | 3.79+ |
|  |            |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 4     | 3.75  |
|  |            |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 1     | 1.75  |
|  |            |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                      |         |         |         |         |         |         |         |         |         |          |          |          |    | 22    | 3.56+ |

[illegible]

TABLE No. 88.—Continued.

| Class of Industry.                     | Sex.       | Wages per Day. |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | Total Number. | Average Week-ly Wages. |         |         |         |         |         |          |          |          |     |        |        |
|--|------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------------|------------------------|---------|---------|---------|---------|---------|----------|----------|----------|-----|--------|--------|
|  |            | \$0.25.        | \$0.75. | \$1.00. | \$1.25. | \$1.50. | \$1.75. | \$2.00. | \$2.25. | \$2.50. | \$2.80. | \$3.00. | \$3.25. | \$3.50. | \$3.75. | \$4.00. | \$4.25. | \$4.50. | \$5.00. | \$5.25. | \$5.50. | \$5.75. | \$6.00. | \$6.25. | \$6.50. |               |                        | \$7.00. | \$7.50. | \$8.00. | \$8.50. | \$9.00. | \$10.00. | \$10.50. | \$12.00. |     |        |        |
| Printing and publishing.....           | { F.<br>M. |                |         | 2       | 33      | 5       | 1       | 17      |         |         | 27      |         |         |         | 1       | 1       | 3       | 1       | 6       |         | 2       |         |         |         |         |               |                        |         |         |         |         |         |          |          |          | 5   | 4 10   |        |
| Railroading.....                       | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 2       |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          | 185 | 3 11 + |        |
| Second-hand stores.....                | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 3      | 5 66 + |
| Seeds.....                             | { F.<br>M. |                |         |         |         |         |         | 10      |         |         | 9       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          | 19  | 2 23 + |        |
| Sewing machines.....                   | M.         |                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 3      | 4 66 + |
| Sporting goods.....                    | F.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 1      | 2 00   |
| Stone and monuments.....               | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 1      | 5 00   |
| Tailoring.....                         | { F.<br>M. |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 1      | 3 00   |
| Teas, coffees and spices.....          | M.         |                |         | 1       |         | 2       |         | 2       |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 6      | 2 55   |
| Telegraph and telephone companies..... | M.         |                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 12     | 2 58   |
| Telegraph messengers.....              | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 56     | 3 34 + |
| Train newsboys.....                    | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 7      | 3 75   |
| Vessels and tugs.....                  | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 4      | 6 00   |
| Wool, hides and pelts.....             | M.         |                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 2      | 3 00   |
|  | M.         |                |         |         |         |         |         | 1       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |               |                        |         |         |         |         |         |          |          |          |     | 2      | 2 50   |

As is stated on page 217, the reports of special canvassers were also placed upon supervisors' blanks that, so far as possible, they might show a State work. It was intended to give the report of supervisors' work in detail of industries for each county, both in manufacturing and all other business interests. The report covering the work of special canvassers already gives to the reader in detail the condition of each locality canvassed, and covers over one hundred pages of the report. To carry out the intentions above referred to would add about 150 pages, and while the tables have been prepared, it is deemed best to condense the work still further and make the report less voluminous. In doing this, Table No. 39 will show the name and number of each manufacturing industry reported in the State; number and sex of employés; highest and lowest wages paid; average hours' work per day; number of employés losing time; average number of days lost and sanitary condition. It also shows that 41,534 employés lost time averaging 130 days each for the year reported. The reports to the Bureau show this loss of time to have been from closing of manufacturing industries, principally during winter months. The same table shows that 61,377 employés worked in establishments where sanitary condition is reported "good;" 2,391 were in establishments reporting sanitary condition "fair," and 237 worked in establishments having a "poor" sanitary condition.

Table No. 40 will show the names of 78 counties reporting manufacturing industries; the number of towns and cities reporting in each county; the number of towns and cities reporting manufacturing industries; number of manufactories reported in each county; number and sex of employés; highest and lowest wages paid and average hours worked in each county, and totals for the State.

Table No. 41 will show the name and number of all classes of business (other than manufacturing) reported in the State; number of employés, their sex, married or single, number 16 years of age and over, number under 16 years of age and nativity; number receiving wages per week from \$1 to \$4, \$4 to \$12, \$12 to \$18 and over \$18, with average hours per day's work. This table, as will be seen, includes the clerical forces of business houses.

Table No. 42 will show the names of 74 counties reporting business interests (other than manufacturing), the number of business houses in each county; number of employés, number of each sex, number married or single, number over and under 16 years of age, number foreign or native born in each county; number receiving wages as shown in Table No. 41, and average hours for a day's work in each county; also totals for the State.

From tables 40 and 42 it will be seen that there were reported to the Bureau 102,995 male and 11,532 female employés. Of these, 59,618 males and 8,394 females were reported by special canvass, and 43,377 males and 3,138 females were reported by supervisors and postmasters. The following is a summary of totals of employés as shown in these two tables:

## MANUFACTURING.

|   |        |
|---|--------|
| Number of counties reported.....                                  | 78     |
| Number of cities and towns.....                                   | 1,183  |
| Number of cities and towns reporting manufacturing interests..... | 566    |
| Number of manufacturing industries reported.....                  | 3,161  |
| Number of male employés reported.....                             | 78,940 |
| Number of female employés reported.....                           | 5,632  |
| Total employés.....   | 79,572 |

## ALL OTHER BUSINESS.

|   |        |
|---|--------|
| Number of counties reported.....        | 74     |
| Number of business houses reported..... | 7,594  |
| Number of male employés reported.....   | 29,055 |
| Number of female employés reported..... | 5,900  |
| Total employés.....                     | 34,955 |

## GRAND TOTAL OF EMPLOYÉS.

|  |         |
|--|---------|
| Male employés reported (tables 40 and 42).....   | 102,995 |
| Female employés reported (tables 40 and 42)..... | 11,532  |
| Railroad employés reported on page 193.....      | 18,518  |
| Total number employés reported to Bureau.....    | 133,045 |

## HOURS.

|   |                 |
|---|-----------------|
| Average hours for day's work in manufacturing.....      | 10 hrs. 20 min. |
| Average hours for day's work in all other business..... | 10 hrs. 57 min. |

## HIGHEST DAILY WAGES IN MANUFACTORIES.

|  |                |
|--|----------------|
| One county reports highest wage per day.....           | \$1 00         |
| Four counties report highest wage per day from.....    | \$2 00 to 3 00 |
| Twenty counties report highest wage per day from.....  | 3 00 to 4 00   |
| Twenty counties report highest wage per day from.....  | 4 00 to 5 00   |
| Sixteen counties report highest wage per day from..... | 5 00 to 6 00   |
| Twelve counties report highest wage per day from.....  | 6 00 to 7 00   |
| Three counties report highest wage per day from.....   | 7 00 to 9 00   |
| Two counties report the highest wage in each at.....   | 9 58 and 10 00 |

## LOWEST DAILY WAGES IN MANUFACTORIES.\*

|  |              |
|--|--------------|
| One county reports lowest wages per day.....               | \$0 16       |
| One county reports lowest wages per day.....               | 17           |
| Fourteen counties report lowest wages per day.....         | 25           |
| Fifteen counties report lowest wages per day from.....     | \$0 30 to 40 |
| Ten counties report lowest wages per day from.....         | 40 to 50     |
| Twenty-four counties report lowest wages per day from..... | 50 to 60     |
| Nine counties report lowest wages per day from.....        | 60 to 1 00   |
| Six counties report lowest wages per day from.....         | 1 00 to 1 50 |

## WAGES IN OTHER BUSINESS.

|   |                |
|---|----------------|
| 3,062 employés receive per week.....      | \$1 00 to 4 00 |
| 24,247 employés receive per week.....     | 4 00 to 12 00  |
| 5,035 employés receive per week.....      | 12 00 to 18 00 |
| 1,611 employés receive per week over..... | 18 00          |

\* This statement includes the wages paid to children under sixteen years of age.

**TABLE NO. 39.—Showing by Occupation or Class of Manufacturing Industry, the Number of Industries of each Class; Number of Males and Females Employed in each and the total number of Employés; the Highest Wages and the Lowest Wages paid in each Industry; the Average Hours worked per day; the Number losing time and the average time out of employment by reason of works being closed, and the Number of Employés working where the Sanitary Condition is given as "good," "fair," and "poor," as reported by the Supervisors of the State.**

| Class of Industry.                          | Number in each Class. | Number of Employés. |          |        | Wages.        |              | Average hours per day. |          | Number of Employés losing time. | Average Number of days lost. | Number working where Sanitary Condition is |       |       |
|---|-----------------------|---------------------|----------|--------|---------------|--------------|------------------------|----------|---------------------------------|------------------------------|--|-------|-------|
|   |                       | Males.              | Females. | Total. | Highest Paid. | Lowest Paid. | Hours.                 | Minutes. |                                 |                              | Good.                                      | Fair. | Poor. |
| Total, State.....                           | 3,161                 | 73,940              | 5,632    | 79,572 | \$10 00       | \$0 16       | 10                     | 20       | 41,534                          | 130                          | 61,377                                     | 2,391 | 237   |
| Agricultural imple-<br>ments.....           | 30                    | 569                 | .....    | 569    | \$5 00        | \$0 35       | 9                      | 52       | 45                              | 107                          | 550  | ..... | ..... |
| Alabastine.....                             | 1                     | 12                  | .....    | 12     | 1 50          | 75           | 10                     | .....    | 12                              | 104                          | 12   | ..... | ..... |
| Albums.....                                 | 1                     | 30                  | 10       | 40     | 3 33          | 50           | 10                     | .....    | 30                              | 26                           | 40   | ..... | ..... |
| Artificial limbs.....                       | 2                     | 7                   | .....    | 7      | 3 00          | 1 50         | 10                     | .....    | .....                           | .....                        | 7  | ..... | ..... |
| Artificial stone and pipe                   | 3                     | 16                  | .....    | 16     | 2 25          | 1 17         | 9                      | 26       | .....                           | .....                        | 15   | ..... | ..... |
| Awnings, tents and sails                    | 5                     | 15                  | 7        | 22     | 2 50          | 84           | 10                     | .....    | .....                           | .....                        | 20   | ..... | ..... |
| Bark.....                                   | 1                     | 200                 | .....    | 200    | 2 00          | 1 00         | 10                     | .....    | .....                           | .....                        | .....                                      | ..... | ..... |
| Baskets and fruit pack-<br>ages.....        | 12                    | 345                 | 111      | 456    | 2 75          | 25           | 10                     | 5        | 267                             | 120                          | 427  | ..... | ..... |
| Bath-brick and polish-<br>ing powder.....   | 1                     | 5                   | .....    | 5      | 1 00          | 75           | 10                     | .....    | .....                           | .....                        | .....                                      | ..... | ..... |
| Bed springs.....                            | 4                     | 19                  | 3        | 22     | 2 00          | 58           | 10                     | .....    | .....                           | .....                        | 16   | ..... | ..... |
| Bee-hives.....                              | 3                     | 6                   | .....    | 6      | 2 00          | 1 00         | 10                     | .....    | 6                               | 156                          | 4  | ..... | ..... |
| Beer.....                                   | 60                    | 463                 | 2        | 465    | 5 00          | 25           | 10                     | 12       | .....                           | .....                        | 412  | 27    | 12    |
| Beer pumps.....                             | 2                     | 4                   | .....    | 4      | 2 17          | 21           | 8                      | .....    | .....                           | .....                        | 4  | ..... | ..... |
| Belting.....                                | 2                     | 45                  | .....    | 45     | 3 00          | 75           | 10                     | .....    | .....                           | .....                        | 45   | ..... | ..... |
| Billiard tables.....                        | 1                     | 10                  | .....    | 10     | 5 00          | 1 75         | 10                     | .....    | .....                           | .....                        | 10   | ..... | ..... |
| Blank books and binding                     | 9                     | 141                 | 104      | 245    | 3 00          | 33           | 10                     | .....    | .....                           | .....                        | 200  | ..... | ..... |
| Boilers.....                                | 15                    | 213                 | .....    | 213    | 3 50          | 30           | 10                     | .....    | .....                           | .....                        | 192  | ..... | ..... |
| Boots and shoes.....                        | 21                    | 206                 | 96       | 302    | 3 00          | 20           | 10                     | 19       | .....                           | .....                        | 294  | 2     | ..... |
| Boxes.....                                  | 21                    | 526                 | 126      | 652    | 4 00          | 25           | 10                     | 1        | 72                              | 151                          | 636  | 16    | ..... |
| Brick and tile.....                         | 98                    | 1,550               | 75       | 1,625  | 4 00          | 17           | 10                     | 43       | 1,432                           | 145                          | 401  | 6     | 28    |
| Bronze goods.....                           | 1                     | 40                  | 1        | 41     | 4 00          | 1 50         | 10                     | .....    | .....                           | .....                        | 41   | ..... | ..... |
| Brooms and brushes.....                     | 18                    | 143                 | 11       | 154    | 2 00          | 48           | 10                     | 4        | 45                              | 102                          | 144  | 9     | ..... |
| Building stone and<br>monuments.....        | 35                    | 520                 | 9        | 529    | 5 00          | 33           | 10                     | .....    | 306                             | 106                          | 488  | 9     | ..... |
| Candies and confection-<br>eries.....       | 7                     | 119                 | 104      | 223    | 4 00          | 35           | 10                     | .....    | .....                           | .....                        | 165  | ..... | ..... |
| Canned goods.....                           | 4                     | 144                 | 204      | 348    | 4 00          | 30           | 10                     | .....    | .....                           | .....                        | 348  | ..... | ..... |
| Carbon, glue, etc.....                      | 1                     | 150                 | .....    | 150    | 2 25          | 50           | 10                     | .....    | .....                           | .....                        | .....                                      | ..... | ..... |
| Carriages, wagons and<br>sleighs.....       | 187                   | 1,887               | 8        | 1,895  | 8 00          | 30           | 9                      | 59       | 44                              | 89                           | 1,617                                      | 48    | 2     |
| Car wheels.....                             | 2                     | 230                 | .....    | 230    | 3 50          | 60           | 10                     | .....    | .....                           | .....                        | 230  | ..... | ..... |
| Caskets and under-<br>takers' supplies..... | 5                     | 129                 | 15       | 144    | 3 00          | 50           | 9                      | 57       | .....                           | .....                        | 144  | ..... | ..... |
| Castings and machinery                      | 162                   | 2,588               | 14       | 2,602  | 8 00          | 35           | 10                     | .....    | 500                             | 118                          | 1,928                                      | 28    | ..... |

TABLE NO. 39.—Continued.

| Class of Industry.                           | Number in each Class. | Number of Employés. |          |        | Wages.        |              | Average hours per day. |          | Number of Employés losing time. | Average Number of days lost. | Number working where Sanitary Condition is |       |       |
|--|-----------------------|---------------------|----------|--------|---------------|--------------|------------------------|----------|---------------------------------|------------------------------|--|-------|-------|
|  |                       | Males.              | Females. | Total. | Highest Paid. | Lowest Paid. | Hours.                 | Minutes. |                                 |                              | Good.                                      | Fair. | Poor. |
| Charcoal and coke.....                       | 23                    | 245                 | 1        | 246    | \$3 00        | \$1 00       | 9                      | 58       | 44                              | 170                          | 32   | ..... | ..... |
| Cheese and dairy products.....               | 23                    | 93                  | 3        | 96     | 4 00          | 50           | 10                     | 17       | 24                              | 113                          | 82   | ..... | ..... |
| Chemicals, etc.....                          | 6                     | 327                 | 307      | 634    | 5 00          | 25           | 10                     | .....    | .....                           | .....                        | 634  | ..... | ..... |
| Churns, milk-cabinets and refrigerators..... | 5                     | 105                 | .....    | 105    | 2 50          | 40           | 9                      | 46       | 12                              | 104                          | 105  | ..... | ..... |
| Cider, vinegar and jelly.....                | 16                    | 98                  | 31       | 129    | 3 00          | 25           | 10                     | 44       | 71                              | 239                          | 97   | 6     | ..... |
| Cigars and tobacco.....                      | 139                   | 1,230               | 662      | 1,892  | 6 00          | 25           | 10                     | 2        | 16                              | 33                           | 1,722                                      | 53    | 15    |
| Clothes wringers.....                        | 3                     | 21                  | .....    | 21     | 4 00          | 50           | 10                     | .....    | .....                           | .....                        | 21   | ..... | ..... |
| Clothing.....                                | 16                    | 159                 | 281      | 440    | 4 00          | 25           | 10                     | .....    | 29                              | 54                           | 408  | 4     | ..... |
| Coal mining.....                             | 1                     | 31                  | .....    | 31     | 3 50          | 1 50         | 7                      | .....    | .....                           | .....                        | 31   | ..... | ..... |
| Cooperage.....                               | 86                    | 1,005               | 20       | 1,025  | 3 50          | 25           | 10                     | .....    | 101                             | 75                           | 906  | 32    | ..... |
| Corsets.....                                 | 4                     | 45                  | 472      | 517    | 5 00          | 30           | 10                     | .....    | .....                           | .....                        | 517  | ..... | ..... |
| Crackers.....                                | 8                     | 149                 | 17       | 166    | 5 00          | 17           | 10                     | 3        | 151                             | .....                        | .....                                      | ..... | ..... |
| Curtain fixtures.....                        | 3                     | 41                  | 1        | 42     | 2 25          | 60           | 10                     | .....    | .....                           | .....                        | 3  | 39    | ..... |
| Door-knobs.....                              | 2                     | 23                  | 5        | 28     | 2 00          | 58           | 10                     | .....    | .....                           | .....                        | 28   | ..... | ..... |
| Eaves-troughs.....                           | 1                     | 4                   | .....    | 4      | 1 25          | 1 25         | 10                     | .....    | 4                               | 104                          | 4  | ..... | ..... |
| Edged tools.....                             | 6                     | 40                  | 1        | 41     | 3 50          | 50           | 10                     | .....    | .....                           | .....                        | 28   | 10    | ..... |
| Elbows.....                                  | 1                     | 5                   | .....    | 5      | 75            | 50           | 10                     | .....    | .....                           | .....                        | 5  | ..... | ..... |
| Electrical apparatus and supplies.....       | 2                     | 84                  | 2        | 86     | 4 00          | 43           | 10                     | .....    | .....                           | .....                        | 4  | ..... | ..... |
| Emery wheels.....                            | 1                     | 39                  | 1        | 40     | 4 00          | 66           | 10                     | .....    | .....                           | .....                        | 40   | ..... | ..... |
| Engines.....                                 | 7                     | 233                 | .....    | 233    | 3 50          | 50           | 9                      | 40       | .....                           | .....                        | 233  | ..... | ..... |
| Excelsior.....                               | 3                     | 39                  | .....    | 39     | 3 00          | 50           | 10                     | .....    | .....                           | .....                        | 39   | ..... | ..... |
| Exhaust fans and blowers.....                | 2                     | 40                  | .....    | 40     | 5 00          | 1 00         | 10                     | .....    | .....                           | .....                        | 40   | ..... | ..... |
| Explosives.....                              | 2                     | 22                  | .....    | 22     | 3 00          | 1 25         | 10                     | .....    | .....                           | .....                        | 20   | ..... | 2     |
| Extracts and perfumes.....                   | 4                     | 37                  | 17       | 54     | 4 50          | 60           | 10                     | .....    | .....                           | .....                        | 25   | ..... | ..... |
| Fanning mills.....                           | 5                     | 36                  | 3        | 39     | 3 00          | 50           | 10                     | .....    | 4                               | 78                           | 41   | ..... | ..... |
| Featherbone.....                             | 1                     | 30                  | 70       | 100    | 3 00          | 33           | 10                     | .....    | 100                             | 43                           | 100  | ..... | ..... |
| Felt goods.....                              | 1                     | 21                  | 13       | 34     | 3 50          | 50           | 10                     | .....    | .....                           | .....                        | 24   | ..... | ..... |
| Fence slats.....                             | 2                     | 6                   | .....    | 6      | 2 00          | 75           | 10                     | .....    | 6                               | 156                          | .....                                      | ..... | ..... |
| Files.....                                   | 2                     | 19                  | 1        | 20     | 3 00          | 1 25         | 10                     | .....    | .....                           | .....                        | 20   | ..... | ..... |
| Fire kindlers.....                           | 1                     | 14                  | .....    | 14     | 1 50          | 80           | 10                     | .....    | .....                           | .....                        | 14   | ..... | ..... |
| Flour and feed.....                          | 298                   | 1,400               | 7        | 1,407  | 5 66          | 36           | 11                     | 15       | 719                             | 78                           | 1,161                                      | 22    | 3     |
| Fruit evaporating.....                       | 7                     | 40                  | 62       | 102    | 2 50          | 38           | 10                     | 7        | 77                              | 209                          | 76   | 14    | 12    |
| Fur goods.....                               | 1                     | 37                  | 71       | 108    | 5 00          | 25           | 10                     | .....    | .....                           | .....                        | 208  | ..... | ..... |
| Furnaces and heaters.....                    | 6                     | 103                 | .....    | 103    | 6 25          | 60           | 10                     | .....    | .....                           | .....                        | 103  | ..... | ..... |
| Furniture.....                               | 96                    | 3,573               | 135      | 3,708  | 6 00          | 25           | 10                     | 7        | 2,901                           | 12                           | 3,443                                      | 44    | 2     |
| Fuse.....                                    | 2                     | 7                   | 4        | 11     | 3 00          | 45           | 10                     | .....    | .....                           | .....                        | 7  | ..... | ..... |
| Galvanized pipe.....                         | 1                     | 13                  | .....    | 13     | 2 00          | 66           | 10                     | .....    | .....                           | .....                        | .....                                      | 13    | ..... |

TABLE NO. 39.—Continued.

| Class of Industry.                           | Number in each Class. | Number of Em-<br>ployés. |          |        | Wages.           |                 | Average<br>hours<br>per day. |          | Number of Em-<br>ployés<br>losing<br>time. | Average Number<br>of days lost. | Number working<br>where Sanitary<br>Condition is |       |       |
|--|-----------------------|--------------------------|----------|--------|------------------|-----------------|------------------------------|----------|--|---------------------------------|--|-------|-------|
|  |                       | Males.                   | Females. | Total. | Highest<br>Paid. | Lowest<br>Paid. | Hours.                       | Minutes. |  |                                 | Good.  | Fair. | Poor. |
| Gas fixtures.....                            | 1                     | 29                       | .....    | 29     | \$3 25           | \$0 33          | 10                           | .....    | .....                                      | .....                           | 29   | ..... | ..... |
| Gelatine goods.....                          | 1                     | 3                        | 90       | 93     | 3 33             | 75              | 9                            | .....    | .....                                      | .....                           | 93   | ..... | ..... |
| Gloves, whip lashes<br>and lace leather..... | 1                     | 16                       | 12       | 28     | 2 50             | 50              | 10                           | .....    | .....                                      | .....                           | 28   | ..... | ..... |
| Hair goods.....                              | 2                     | 1                        | 34       | 35     | 2 16             | 50              | 9                            | .....    | .....                                      | .....                           | 35   | ..... | ..... |
| Hand cars and railroad<br>velocipedes.....   | 2                     | 84                       | 1        | 85     | 3 00             | 50              | 10                           | .....    | .....                                      | .....                           | 85   | ..... | ..... |
| Handles, etc.....                            | 25                    | 324                      | .....    | 324    | 6 00             | 50              | 10                           | .....    | 47   | 139                             | 324  | ..... | ..... |
| Hardware.....                                | 3                     | 201                      | 43       | 244    | 2 50             | 33              | 10                           | .....    | .....                                      | .....                           | 244  | ..... | ..... |
| Harness.....                                 | 40                    | 154                      | 6        | 160    | 2 50             | 50              | 10                           | 3        | .....                                      | .....                           | 147  | 2     | ..... |
| Hoops.....                                   | 7                     | 84                       | .....    | 84     | 2 50             | 50              | 9                            | 51       | 57   | 102                             | 84   | ..... | ..... |
| Iron cornices and roofing                    | 4                     | 35                       | .....    | 35     | 2 50             | 1 05            | 10                           | .....    | .....                                      | .....                           | 35   | ..... | ..... |
| Jewelry.....                                 | 5                     | 41                       | .....    | 41     | 6 67             | 50              | 9                            | 58       | .....                                      | .....                           | 41   | ..... | ..... |
| Knit goods.....                              | 7                     | 112                      | 1,232    | 1,344  | 4 25             | 25              | 10                           | 24       | .....                                      | .....                           | 803  | 412   | ..... |
| Ladders.....                                 | 2                     | 7                        | .....    | 7      | 1 75             | 62              | 10                           | .....    | .....                                      | .....                           | 7  | ..... | ..... |
| Lead pipe and sheet lead                     | 1                     | 8                        | .....    | 8      | 5 00             | 1 50            | 10                           | .....    | .....                                      | .....                           | 8  | ..... | ..... |
| Leather dressing.....                        | 1                     | 7                        | .....    | 7      | 1 35             | 75              | 10                           | .....    | .....                                      | .....                           | 7  | ..... | ..... |
| Lime.....                                    | 10                    | 113                      | .....    | 113    | 6 00             | 1 00            | 10                           | 26       | 35   | 104                             | 87   | ..... | ..... |
| Locks and scales.....                        | 3                     | 15                       | .....    | 15     | 4 50             | 35              | 10                           | .....    | .....                                      | .....                           | 10   | ..... | 5     |
| Locomotives and cars...                      | 5                     | 1,080                    | 8        | 1,088  | 9 58             | 50              | 10                           | .....    | .....                                      | .....                           | 565  | ..... | ..... |
| Logs, timber and spars..                     | 58                    | 3,882                    | 30       | 3,912  | 5 00             | 50              | 11                           | 17       | 1,914                                      | 159                             | 615  | 12    | ..... |
| Lubricating oils.....                        | 3                     | 24                       | 4        | 28     | 6 51             | 50              | 10                           | .....    | .....                                      | .....                           | 28   | ..... | ..... |
| Lumber, lath and<br>shingles.....            | 908                   | 29,477                   | 227      | 29,704 | 10 00            | 16              | 10                           | 37       | 28,763                                     | 180                             | 23,099   | 1,462 | 120   |
| Malt.....                                    | 6                     | 61                       | 1        | 62     | 3 00             | 1 50            | 10                           | 15       | .....                                      | .....                           | 62   | ..... | ..... |
| Marble tops.....                             | 1                     | 8                        | .....    | 8      | 3 00             | 50              | 10                           | .....    | .....                                      | .....                           | 8  | ..... | ..... |
| Matches.....                                 | 1                     | 14                       | 35       | 49     | 1 75             | 25              | 10                           | .....    | .....                                      | .....                           | 49   | ..... | ..... |
| Mattresses.....                              | 1                     | 3                        | 2        | 5      | 2 00             | 75              | 10                           | .....    | .....                                      | .....                           | 5  | ..... | ..... |
| Metal novelties and<br>brass works.....      | 6                     | 50                       | .....    | 50     | 3 00             | 50              | 10                           | .....    | .....                                      | .....                           | 49   | 1     | ..... |
| Mining.....                                  | 40                    | 7,057                    | 2        | 7,059  | 8 50             | 66              | 10                           | .....    | 881  | 151                             | 5,740  | ..... | 20    |
| Mirrors.....                                 | 1                     | 1                        | .....    | 1      | 50               | 50              | 10                           | .....    | .....                                      | .....                           | 1  | ..... | ..... |
| Musical instruments....                      | 5                     | 122                      | .....    | 122    | 5 00             | 50              | 10                           | .....    | .....                                      | .....                           | 111  | ..... | ..... |
| Oil cups.....                                | 1                     | 4                        | .....    | 4      | 2 17             | 67              | 10                           | .....    | .....                                      | .....                           | 4  | ..... | ..... |
| Optical instruments.....                     | 2                     | 23                       | 11       | 34     | 4 00             | 25              | 9                            | .....    | .....                                      | .....                           | 34   | ..... | ..... |
| Paper.....                                   | 20                    | 562                      | 161      | 723    | 7 00             | 35              | 11                           | 29       | 284  | 14                              | 618  | 7     | ..... |
| Patterns and models....                      | 3                     | 4                        | .....    | 4      | 1 30             | 50              | 10                           | .....    | .....                                      | .....                           | 4  | ..... | ..... |
| Paving blocks.....                           | 2                     | 30                       | .....    | 30     | 1 75             | 60              | 10                           | 40       | .....                                      | .....                           | 10   | ..... | ..... |
| Picture frames.....                          | 5                     | 62                       | 10       | 72     | 3 33             | 30              | 10                           | .....    | .....                                      | .....                           | 72   | ..... | ..... |
| Pig iron.....                                | 11                    | 930                      | .....    | 930    | 3 00             | 1 00            | 10                           | 53       | 363  | 100                             | 660  | ..... | ..... |
| Pike poles.....                              | 1                     | 2                        | .....    | 2      | 1 50             | 1 25            | 10                           | .....    | 2  | 78                              | 2  | ..... | ..... |



TABLE NO. 39.—Continued.

| Class of Industry.                         | Number in each Class. | Number of Em-ployés. |          |        | Wages.        |              | Aver'ge hours per day. |          | Number of Em-ployés losing time. | Average Number of days lost. | Number working where Sanitary Condition is |       |       |
|--|-----------------------|----------------------|----------|--------|---------------|--------------|------------------------|----------|----------------------------------|------------------------------|--|-------|-------|
|  |                       | Males.               | Females. | Total. | Highest Paid. | Lowest Paid. | Hours.                 | Minutes. |                                  |                              | Good.                                      | Fair. | Poor. |
| Pins.....                                  | 1                     | 13                   | 23       | 36     | \$3 00        | \$0 25       | 10                     | .....    | .....                            | .....                        | 36   | ..... | ..... |
| Planing mills, sash, doors and blinds..... | 190                   | 3,376                | 3        | 3,379  | 4 50          | 30           | 10                     | .....    | 754                              | 95                           | 3,075                                      | ..... | 4     |
| Plaster.....                               | 7                     | 164                  | .....    | 164    | 3 00          | 50           | 10                     | 30       | 164                              | 135                          | 81   | ..... | ..... |
| Pop, ginger ale, etc.....                  | 4                     | 15                   | .....    | 15     | 2 50          | 50           | 10                     | .....    | .....                            | .....                        | 15   | ..... | ..... |
| Potteries.....                             | 2                     | 15                   | .....    | 15     | 2 50          | 1 00         | 9                      | 12       | 12                               | 78                           | 15   | ..... | ..... |
| Pressed yeast.....                         | 1                     | 5                    | .....    | 5      | 2 00          | 2 00         | 8                      | .....    | .....                            | .....                        | 5  | ..... | ..... |
| Pulp.....                                  | 4                     | 99                   | .....    | 99     | 5 00          | 75           | 10                     | 39       | .....                            | .....                        | 72   | ..... | ..... |
| Pumps and windmills.....                   | 24                    | 236                  | 4        | 240    | 3 50          | 50           | 10                     | .....    | .....                            | .....                        | 216  | 3     | ..... |
| Rakes and shovels.....                     | 1                     | 12                   | .....    | 12     | 1 50          | 1 00         | 10                     | .....    | 12                               | 26                           | .....                                      | ..... | ..... |
| Regalias.....                              | 2                     | 14                   | 35       | 49     | 3 00          | 40           | 9                      | 18       | .....                            | .....                        | 49   | ..... | ..... |
| Saddlery hardware.....                     | 3                     | 19                   | 1        | 20     | 2 50          | 66           | 10                     | .....    | 3                                | 39                           | 20   | ..... | ..... |
| Saws.....                                  | 4                     | 26                   | .....    | 26     | 3 50          | 1 50         | 10                     | .....    | .....                            | .....                        | 2  | ..... | ..... |
| Screen doors.....                          | 2                     | 9                    | .....    | 9      | 1 75          | 50           | 10                     | .....    | .....                            | .....                        | 9  | ..... | ..... |
| Sewing machines.....                       | 1                     | 26                   | 4        | 30     | 4 17          | 83           | 9                      | .....    | .....                            | .....                        | 30   | ..... | ..... |
| Sheepskin mats.....                        | 1                     | 14                   | 12       | 26     | 3 25          | 50           | 10                     | .....    | .....                            | .....                        | 26   | ..... | ..... |
| Shirts.....                                | 4                     | 10                   | 64       | 74     | 3 80          | 50           | 9                      | 37       | 33                               | 52                           | 74   | ..... | ..... |
| Shoe uppers.....                           | 2                     | 4                    | 4        | 8      | 2 70          | 50           | 10                     | .....    | .....                            | .....                        | 8  | ..... | ..... |
| Show cases.....                            | 1                     | 35                   | .....    | 35     | 2 00          | 75           | 10                     | .....    | .....                            | .....                        | 35   | ..... | ..... |
| Snow plows.....                            | 1                     | 3                    | .....    | 3      | 2 00          | 17           | 10                     | .....    | .....                            | .....                        | 3  | ..... | ..... |
| Soap and potash.....                       | 13                    | 61                   | 4        | 65     | 4 00          | 50           | 10                     | 50       | 6                                | 156                          | 53   | ..... | 4     |
| Spices, extracts and baking powder.....    | 2                     | 10                   | 1        | 11     | 2 33          | 1 00         | 10                     | .....    | .....                            | .....                        | 11   | ..... | ..... |
| Sporting goods.....                        | 3                     | 70                   | 3        | 73     | 2 50          | 50           | 10                     | .....    | 53                               | 19                           | 73   | ..... | ..... |
| Stained glass.....                         | 2                     | 15                   | .....    | 15     | 2 50          | 84           | 10                     | .....    | .....                            | .....                        | 15   | ..... | ..... |
| Staves and headings.....                   | 58                    | 1,375                | .....    | 1,375  | 4 50          | 37           | 10                     | 11       | 647                              | 110                          | 1,245                                      | 70    | ..... |
| Stencils and stamps.....                   | 3                     | 15                   | .....    | 15     | 2 50          | 84           | 10                     | .....    | .....                            | .....                        | 15   | ..... | ..... |
| Stove boards.....                          | 1                     | 10                   | .....    | 10     | 2 50          | 1 00         | 10                     | .....    | .....                            | .....                        | 10   | ..... | ..... |
| Stoves and ranges.....                     | 2                     | 725                  | 1        | 726    | 6 00          | 25           | 10                     | .....    | .....                            | .....                        | 725  | ..... | ..... |
| Straw boards and building material.....    | 2                     | 100                  | 100      | 200    | 3 00          | 60           | 10                     | 16       | 20                               | 52                           | 145  | ..... | ..... |
| Suspenders and braces.....                 | 1                     | 1                    | 5        | 6      | 75            | 25           | 9                      | 30       | .....                            | .....                        | 6  | ..... | ..... |
| Tackle blocks.....                         | 1                     | 12                   | .....    | 12     | 2 75          | 1 25         | 10                     | .....    | .....                            | .....                        | .....                                      | 12    | ..... |
| Tanned leather.....                        | 18                    | 392                  | .....    | 392    | 4 00          | 33           | 10                     | .....    | .....                            | .....                        | 381  | ..... | 8     |
| Telegraph poles, pins and brackets.....    | 2                     | 23                   | .....    | 23     | 2 50          | 33           | 9                      | 41       | .....                            | .....                        | 14   | ..... | ..... |
| Thrashing machines.....                    | 5                     | 479                  | .....    | 479    | 3 00          | 50           | 10                     | 1        | .....                            | .....                        | 194  | ..... | ..... |
| Till factory.....                          | 1                     | 5                    | .....    | 5      | 1 50          | 50           | 12                     | .....    | .....                            | .....                        | 5  | ..... | ..... |
| Tin, copper and sheet iron.....            | 12                    | 89                   | 1        | 90     | 3 00          | 50           | 10                     | .....    | .....                            | .....                        | 76   | 4     | ..... |
| Toothpicks.....                            | 1                     | 5                    | 11       | 16     | 2 00          | 40           | 10                     | .....    | .....                            | .....                        | 16   | ..... | ..... |
| Toys.....                                  | 2                     | 17                   | .....    | 17     | 4 00          | 50           | 10                     | .....    | .....                            | .....                        | 17   | ..... | ..... |

TABLE NO. 39.—Continued.

| Class of Industry.                  | Number in each Class. | Number of Em-ployés. |          |        | Wages.        |              | Aver'ge hours per day. |          | Number of Em-ployés losing time. | Average Number of days lost. | Number working where Sanitary Condition is |       |       |
|-------------------------------------|-----------------------|----------------------|----------|--------|---------------|--------------|------------------------|----------|----------------------------------|------------------------------|--|-------|-------|
|                                     |                       | Males.               | Females. | Total. | Highest Paid. | Lowest Paid. | Hours.                 | Minutes. |                                  |                              | Good.                                      | Fair. | Poor. |
| Trunks and valises .....            | 7                     | 121                  | .....    | 121    | \$5 00        | \$0 40       | 10                     | .....    | .....                            | .....                        | 121  | ..... | ..... |
| Typewriters .....                   | 1                     | 4                    | .....    | 4      | 4 00          | 2 00         | 10                     | .....    | .....                            | .....                        | 4  | ..... | ..... |
| Umbrellas .....                     | 1                     | 2                    | .....    | 2      | 1 00          | 50           | 10                     | .....    | .....                            | .....                        | 2  | ..... | ..... |
| Underwear .....                     | 1                     | 9                    | 84       | 93     | 8 00          | 40           | 10                     | .....    | .....                            | .....                        | 93   | ..... | ..... |
| Valves and hydrants .....           | 1                     | 90                   | .....    | 90     | 2 75          | 42           | 10                     | .....    | .....                            | .....                        | .....                                      | ..... | ..... |
| Varnishes .....                     | 1                     | 28                   | .....    | 28     | 2 00          | 75           | 10                     | .....    | .....                            | .....                        | 28   | ..... | ..... |
| Veneers and panels .....            | 2                     | 19                   | .....    | 19     | 3 50          | 50           | 10                     | .....    | .....                            | .....                        | 16   | 3     | ..... |
| Vessel building .....               | 11                    | 423                  | .....    | 423    | 3 00          | 1 00         | 10                     | .....    | 175                              | 130                          | 418  | ..... | ..... |
| Voltaic belts .....                 | 1                     | 5                    | 3        | 8      | 4 00          | 1 00         | 8                      | .....    | .....                            | .....                        | 8  | ..... | ..... |
| Washing machines .....              | 2                     | 5                    | .....    | 5      | 1 25          | 25           | 10                     | .....    | .....                            | .....                        | 1  | 4     | ..... |
| Wheelbarrows .....                  | 4                     | 85                   | .....    | 85     | 2 50          | 50           | 9                      | 42       | .....                            | .....                        | 85   | ..... | ..... |
| Wheels, spokes and bent works ..... | 5                     | 112                  | 1        | 113    | 3 00          | 75           | 10                     | .....    | 5                                | 104                          | 62   | ..... | ..... |
| White lead and paints .....         | 4                     | 52                   | .....    | 52     | 3 50          | 27           | 10                     | .....    | .....                            | .....                        | 52   | ..... | ..... |
| Window shades .....                 | 1                     | 2                    | .....    | 2      | 1 00          | 65           | 10                     | .....    | .....                            | .....                        | 2  | ..... | ..... |
| Wire and iron works .....           | 5                     | 270                  | 10       | 280    | 6 00          | 25           | 8                      | 58       | .....                            | .....                        | 280  | ..... | ..... |
| Woodenware .....                    | 25                    | 615                  | 43       | 658    | 5 25          | 33           | 10                     | .....    | 129                              | 124                          | 653  | 3     | ..... |
| Wood water-pipe .....               | 1                     | 40                   | .....    | 40     | 2 75          | 40           | 10                     | .....    | .....                            | .....                        | 40   | ..... | ..... |
| Woolen goods .....                  | 19                    | 183                  | 219      | 402    | 3 00          | 40           | 10                     | 17       | 157                              | 80                           | 326  | 14    | ..... |

**TABLE NO. 40.—Showing, by Counties, the number of Cities and Towns in the State to which blanks were sent; the number reporting Manufacturing Industries; the number of Industries reported; the number of Male and Female Employés; the Highest and Lowest Wages paid; the Average Hours Worked per Day, and the Totals for the State, as reported by the Supervisors.**

| Counties.            | Number of Towns and Cities in each County. | Number of Towns and Cities Reporting Manu- facturing Industries. | Number of Manu- facturing Industries Reported. | Number of Male Employés. | Number of Female Employés. | Highest Wages Paid per Day. | Lowest Wages Paid per Day. | Average Hours and Minutes per Day's Work. |          |
|----------------------|--|--|--|--------------------------|----------------------------|-----------------------------|----------------------------|---|----------|
|                      |  |  |  |                          |                            |                             |                            | Hours.                                    | Minutes. |
| State .....          | 1,183                                      | 566  | 3,161  | 73,940                   | 5,632                      | \$10 00                     | \$0 16*                    | 10  | 20 +     |
| Alcona .....         | 4  | 2  | 7  | 730                      | 7                          | \$8 00                      | \$0 75                     | 11  | 59       |
| Allegan .....        | 24   | 7  | 54   | 374                      | 25                         | 3 50                        | 33                         | 10  | 11       |
| Alpena .....         | 7  | 3  | 23   | 763                      | .....                      | 6 00                        | 50                         | 10  | 54       |
| Antrim .....         | 15   | 8  | 25   | 634                      | 38                         | 6 00                        | 50                         | 10  | 44       |
| Arenac .....         | 9  | 3  | 5  | 74                       | 11                         | 4 00                        | 75                         | 11  | 39       |
| Baraga .....         | 4  | 2  | 5  | 357                      | .....                      | 7 00                        | 1 50                       | 11  | 24       |
| Barry .....          | 17   | 7  | 27   | 140                      | 4                          | 3 00                        | 50                         | 10  | 21       |
| Bay .....            | 13   | 5  | 83   | 4,011                    | 7                          | 6 00                        | 16*                        | 10  | 30       |
| Benzie .....         | 12   | 6  | 22   | 233                      | .....                      | 3 75                        | 75                         | 10  | 42       |
| Berrien .....        | 21   | 16   | 65   | 1,002                    | 638                        | 5 00                        | 25                         | 10  | 29       |
| Branch .....         | 17   | 7  | 60   | 399                      | 71                         | 4 80                        | 33                         | 10  | 4        |
| Calhoun .....        | 23   | 8  | 47   | 1,071                    | 118                        | 6 25                        | 30                         | 10  | 4        |
| Cass .....           | 16   | 6  | 32   | 222                      | 15                         | 3 00                        | 50                         | 10  | 10       |
| Charlevoix .....     | 15   | 4  | 17   | 367                      | 15                         | 4 00                        | 1 00                       | 10  | 10       |
| Cheboygan .....      | 14   | 3  | 5  | 85                       | .....                      | 3 00                        | 50                         | 10  | 53       |
| Chippewa .....       | 8  | 6  | 13   | 714                      | 4                          | 4 50                        | 50                         | 11  | .....    |
| Clare .....          | 10   | 3  | 12   | 249                      | 3                          | 5 00                        | 57                         | 12  | 5        |
| Clinton .....        | 16   | 8  | 25   | 167                      | .....                      | 2 75                        | 25                         | 10  | 5        |
| Crawford .....       | 8  | 2  | 4  | 190                      | .....                      | 3 00                        | 50                         | 10  | 8        |
| Delta .....          | 13   | 6  | 13   | 767                      | 7                          | 5 00                        | 58                         | 11  | 3        |
| Eaton .....          | 18   | 8  | 46   | 352                      | 8                          | 4 00                        | 25                         | 10  | 2        |
| Emmet .....          | 12   | 6  | 14   | 183                      | 11                         | 2 50                        | 40                         | 10  | 9        |
| Genesee .....        | 19   | 14   | 76   | 678                      | 96                         | 6 00                        | 30                         | 10  | 13       |
| Gladwin .....        | 8  | 1  | 4  | 155                      | .....                      | 1 00                        | 75                         | 12  | .....    |
| Grand Traverse ..... | 12   | 2  | 12   | 193                      | 8                          | 6 50                        | 35                         | 10  | .....    |
| Gratiot .....        | 17   | 8  | 45   | 485                      | 2                          | 4 00                        | 25                         | 10  | 33       |
| Hillsdale .....      | 19   | 9  | 45   | 348                      | 13                         | 3 50                        | 25                         | 10  | 16       |
| Houghton .....       | 7  | 5  | 15   | 4,731                    | .....                      | 8 50                        | 50                         | 10  | 1        |
| Huron .....          | 27   | 12   | 46   | 856                      | 29                         | 4 00                        | 40                         | 10  | 47       |
| Ingham .....         | 18   | 10   | 63   | 790                      | 29                         | 4 50                        | 25                         | 10  | 1        |
| Ionia .....          | 17   | 7  | 54   | 266                      | 30                         | 4 00                        | 50                         | 10  | 2        |
| Iosco .....          | 12   | 7  | 37   | 1,541                    | 3                          | 5 00                        | 50                         | 10  | 54       |
| Isabella .....       | 16   | 10   | 33   | 504                      | 9                          | 3 50                        | 47                         | 10  | 48       |
| Jackson .....        | 20   | 4  | 58   | 1,176                    | 452                        | 8 00                        | 25                         | 10  | 2        |
| Kalamazoo .....      | 17   | 6  | 75   | 1,392                    | 136                        | 6 00                        | 40                         | 10  | 9        |
| Kalkaska .....       | 12   | 3  | 8  | 129                      | 2                          | 4 00                        | 60                         | 10  | 2        |
| Kent .....           | 25   | 11   | 141  | 4,222                    | 263                        | 5 25                        | 25                         | 10  | 3        |

\* Apprentices.

TABLE NO. 40.—Continued.

| Counties.         | Number of Towns and Cities in each County. | Number of Towns and Cities Reporting Manu- facturing Industries. | Number of Manu- facturing Industries Reported. | Number of Male Employés. | Number of Female Employés. | Highest Wages Paid per Day. | Lowest Wages Paid per Day. | Average Hours and Minutes per Day's Work. |          |
|-------------------|--|--|--|--------------------------|----------------------------|-----------------------------|----------------------------|---|----------|
|                   |  |  |  |                          |                            |                             |                            | Hours.                                    | Minutes. |
| Keweenaw.....     | 7  | 5  | 12   | 631                      | 4                          | \$4 00                      | \$0 45                     | 10  | 34       |
| Lake.....         | 13   | 10   | 31   | 1,204                    | 18                         | 6 00                        | 46                         | 10  | 52       |
| Lapeer.....       | 19   | 9  | 47   | 384                      | 4                          | 3 00                        | 30                         | 10  | 20       |
| Leelanaw.....     | 10   | 7  | 11   | 78                       | .....                      | 3 50                        | 75                         | 10  | 29       |
| Lenawee.....      | 23   | 12   | 91   | 969                      | 220                        | 5 00                        | 40                         | 10  | 3        |
| Livingston.....   | 16   | 5  | 18   | 55                       | .....                      | 2 50                        | 1 00                       | 10  | 5        |
| Mackinac.....     | 9  | 8  | 3  | 160                      | 9                          | 5 00                        | 1 25                       | 11  | 20       |
| Macomb.....       | 15   | 8  | 45   | 505                      | 5                          | 3 50                        | 33                         | 10  | 29       |
| Manistee.....     | 13   | 5  | 32   | 1,687                    | .....                      | 5 00                        | 40                         | 10  | 57       |
| Marquette.....    | 19   | 9  | 38   | 1,226                    | 1                          | 4 00                        | 25                         | 10  | 3        |
| Mason.....        | 14   | 7  | 28   | 792                      | .....                      | 5 00                        | 38                         | 10  | .....    |
| Mecosta.....      | 17   | 9  | 40   | 875                      | 1                          | 6 00                        | 30                         | 10  | 25       |
| Menominee.....    | 10   | 7  | 37   | 2,960                    | .....                      | 5 00                        | 30                         | 11  | 19       |
| Midland.....      | 15   | 9  | 19   | 338                      | 7                          | 3 50                        | 40                         | 10  | 27       |
| Missaukee.....    | 12   | 4  | 13   | 506                      | .....                      | 6 00                        | 50                         | 11  | 33       |
| Monroe.....       | 16   | 8  | 47   | 391                      | 4                          | 3 50                        | 33                         | 10  | 22       |
| Montcalm.....     | 22   | 12   | 73   | 1,146                    | 28                         | 3 50                        | 50                         | 10  | 41       |
| Montmorency.....  | 4  | 2  | 2  | 7                        | .....                      | 3 50                        | 1 50                       | 10  | .....    |
| Muskegon.....     | 18   | 10   | 72   | 3,160                    | 66                         | 6 50                        | 25                         | 10  | 5        |
| Newaygo.....      | 22   | 14   | 44   | 1,436                    | 42                         | 5 00                        | 40                         | 10  | 44       |
| Oakland.....      | 26   | 12   | 50   | 303                      | 407                        | 3 00                        | 25                         | 10  | 6        |
| Oceana.....       | 16   | 9  | 34   | 682                      | 10                         | 4 00                        | 50                         | 10  | 42       |
| Ogemaw.....       | 14   | 7  | 20   | 405                      | 8                          | 4 00                        | 50                         | 11  | 33       |
| Ontonagon.....    | 5  | 3  | 13   | 534                      | 4                          | 10 00                       | 50                         | 10  | 5        |
| Osceola.....      | 16   | 12   | 42   | 486                      | 2                          | 5 00                        | 35                         | 10  | 34       |
| Oscoda.....       | 9  | 3  | 7  | 21                       | .....                      | 2 00                        | 50                         | 10  | 30       |
| Otsego.....       | 8  | 3  | 10   | 190                      | 12                         | 5 00                        | 50                         | 11  | 46       |
| Ottawa.....       | 17   | 8  | 54   | 1,532                    | 66                         | 5 00                        | 25                         | 10  | 35       |
| Presque Isle..... | 9  | 2  | 4  | 21                       | .....                      | 4 00                        | 1 25                       | 10  | 44       |
| Roscommon.....    | 6  | 1  | 1  | 300                      | 10                         | 4 50                        | 75                         | 11  | .....    |
| Saginaw.....      | 29   | 20   | 148  | 5,382                    | 54                         | 6 37                        | 25                         | 10  | 33       |
| Sanilac.....      | 26   | 10   | 23   | 127                      | 6                          | 3 50                        | 38                         | 11  | 18       |
| Schoolcraft.....  | 7  | 5  | 13   | 1,773                    | .....                      | 4 00                        | 50                         | 11  | 26       |
| Shiawassee.....   | 18   | 9  | 38   | 597                      | 15                         | 4 00                        | 50                         | 10  | 39       |
| St. Clair.....    | 25   | 12   | 53   | 941                      | 8                          | 4 50                        | 30                         | 10  | 3        |
| St. Joseph.....   | 16   | 9  | 47   | 678                      | 111                        | 3 00                        | 25                         | 10  | 1        |
| Tuscola.....      | 23   | 11   | 45   | 257                      | 14                         | 3 00                        | 50                         | 10  | 22       |
| Van Buren.....    | 18   | 11   | 37   | 461                      | 13                         | 4 50                        | 50                         | 10  | 23       |
| Washtenaw.....    | 22   | 10   | 84   | 597                      | 126                        | 5 00                        | 35                         | 10  | 6        |
| Wayne.....        | 20   | 10   | 399  | 9,231                    | 2,302                      | 9 58                        | 17*                        | 9   | 57       |
| Wexford.....      | 17   | 9  | 23   | 372                      | 1                          | 5 00                        | 50                         | 10  | 28       |

\* Apprentices.

TABLE NO. 41.—*Showing the Reports of Supervisors of the Business Interests (other than manufacturing) of the State; the Number of Business Houses of each Class; the Number of Male and Female Employés; Number Married and Single; Number over 16 Years of age; Number 16 Years and under; Nativity; Number receiving from \$1 to \$4, \$4 to \$12, \$12 to \$18, and over \$18 per week, and the average hours per day's work.*

| Class of Business.                              | Number in each class. | Number of Employés. |          |          |         | Ages.                 |                           | Nativity. |          | Wages per week—<br>Number receiving |                    |                     |               | Hrs per day. |          |
|---|-----------------------|---------------------|----------|----------|---------|-----------------------|---------------------------|-----------|----------|-------------------------------------|--------------------|---------------------|---------------|--------------|----------|
|   |                       | Males.              | Females. | Married. | Single. | Over 16 years of age. | 16 yrs. of age and under. | Native.   | Foreign. | \$1 00 to \$4 00.                   | \$4 00 to \$12 00. | \$12 00 to \$18 00. | Over \$18 00. | Hours.       | Minutes. |
| Total, State.....                               | 7,594                 | 29,055              | 5,900    | 12,881   | 18,224  | 32,847                | 1,247                     | 21,053    | 9,608    | 3,062                               | 24,247             | 5,035               | 1,611         | 10           | 57       |
| Agricultural imple-<br>ments.....               | 72                    | 180                 | 5        | 96       | 68      | 184                   | 1                         | 153       | 80       | 8                                   | 126                | 40                  | 11            | 11           | 7        |
| Architects' offices.....                        | 4                     | 11                  |          | 4        | 7       | 11                    |                           | 8         | 3        |                                     | 4                  | 6                   | 1             | 8            | 22       |
| Artists' goods.....                             | 3                     | 3                   | 2        | 1        | 4       | 4                     | 1                         | 4         | 1        | 1                                   | 3                  | 1                   |               | 9            | 13       |
| Auctioneers.....                                | 3                     | 9                   |          | 7        | 2       | 9                     |                           | 2         | 7        |                                     | 6                  | 1                   | 2             | 10           | 15       |
| Bakeries.....                                   | 91                    | 230                 | 60       | 102      | 158     | 271                   | 15                        | 150       | 126      | 30                                  | 236                | 19                  | 1             | 11           | 42       |
| Bankers and brokers.....                        | 121                   | 339                 | 5        | 162      | 170     | 338                   | 3                         | 298       | 22       | 6                                   | 113                | 94                  | 121           | 8            | 7        |
| Barber shops and bath-<br>rooms.....            | 158                   | 304                 | 7        | 128      | 180     | 299                   | 10                        | 256       | 50       | 23                                  | 227                | 49                  | 3             | 13           | 10       |
| Bill posters.....                               | 4                     | 19                  |          | 5        | 14      | 19                    |                           | 18        | 1        | 3                                   | 16                 |                     |               | 8            | 41       |
| Blacksmiths and horse-<br>shoers.....           | 250                   | 495                 | 1        | 261      | 189     | 469                   | 6                         | 291       | 165      | 28                                  | 343                | 101                 | 3             | 10           | 6        |
| Bleacheries.....                                | 1                     | 1                   | 2        |          |         | 3                     |                           | 3         |          | 2                                   | 1                  |                     |               | 10           |          |
| Books and stationery.....                       | 70                    | 137                 | 31       | 41       | 123     | 143                   | 22                        | 141       | 24       | 49                                  | 94                 | 13                  | 10            | 11           | 26       |
| Boots and shoes.....                            | 315                   | 626                 | 20       | 329      | 292     | 623                   | 19                        | 403       | 203      | 62                                  | 476                | 67                  | 19            | 11           | 37       |
| Booming, driving and<br>rafting logs.....       | 11                    | 1,299               | 19       | 228      | 565     | 1,310                 | 8                         | 378       | 415      |                                     | 1,126              | 142                 | 49            | 12           | 1        |
| Bottling works.....                             | 19                    | 60                  | 1        | 31       | 27      | 57                    | 4                         | 39        | 22       | 6                                   | 46                 | 10                  |               | 11           | 5        |
| Brick, tile, cement and<br>sewer pipe.....      | 12                    | 69                  |          | 55       | 14      | 69                    |                           | 22        | 45       | 1                                   | 66                 | 2                   | 1             | 10           |          |
| Building stone.....                             | 40                    | 187                 |          | 129      | 44      | 186                   | 1                         | 84        | 48       | 4                                   | 103                | 64                  | 8             | 10           | 7        |
| Carpet cleaning.....                            | 2                     | 3                   |          | 2        | 1       | 3                     |                           | 2         | 1        |                                     | 3                  |                     |               | 10           |          |
| Carriages, wagons and<br>sleighs.....           | 8                     | 36                  |          | 16       | 14      | 35                    | 1                         | 24        | 12       | 5                                   | 17                 | 10                  | 4             | 10           | 7        |
| Cedar posts and ties.....                       | 3                     | 100                 |          | 41       | 59      | 100                   |                           | 38        | 62       |                                     | 100                |                     |               | 10           |          |
| Cigars and tobacco.....                         | 47                    | 84                  | 4        | 43       | 40      | 80                    | 5                         | 52        | 29       | 12                                  | 50                 | 16                  | 10            | 10           | 59       |
| City laborers and water-<br>works employés..... | 26                    | 387                 |          | 298      | 68      | 369                   | 5                         | 140       | 231      | 6                                   | 321                | 42                  | 5             | 10           | 11       |
| Clothing.....                                   | 203                   | 770                 | 136      | 320      | 465     | 875                   | 31                        | 487       | 278      | 63                                  | 553                | 192                 | 89            | 11           | 32       |
| Coal and wood yards.....                        | 67                    | 647                 | 3        | 379      | 242     | 566                   | 7                         | 272       | 221      | 9                                   | 602                | 18                  | 21            | 10           |          |
| Commission and pro-<br>duce.....                | 73                    | 197                 | 31       | 114      | 102     | 215                   | 13                        | 166       | 30       | 24                                  | 155                | 29                  | 16            | 10           | 16       |
| Concrete walk.....                              | 1                     | 8                   |          | 4        | 4       | 8                     |                           | 3         | 5        |                                     | 7                  | 1                   |               | 10           |          |
| Contractors, carpenters<br>and builders.....    | 119                   | 2,065               | 5        | 1,004    | 651     | 1,853                 | 16                        | 705       | 912      | 9                                   | 1,442              | 294                 | 122           | 10           |          |
| Contractor, water-works                         | 1                     | 102                 |          | 84       | 18      | 102                   |                           | 62        | 40       |                                     | 81                 | 13                  | 8             | 10           |          |
| Costumers.....                                  | 1                     | 1                   |          |          | 1       | 1                     |                           | 1         |          |                                     | 1                  |                     |               | 11           |          |
| Crockery, glass and<br>stoneware.....           | 29                    | 132                 | 24       | 53       | 97      | 110                   | 15                        | 90        | 27       | 30                                  | 95                 | 19                  | 12            | 10           | 37       |

TABLE NO. 41.—Continued.

| Class of Business.                             | Number in each class. | Number of Employés. |          |          |         | Ages.                 |                           | Nativity. |          | Wages per week—<br>Number receiving |                    |                     |               | Hrs per day. |          |
|--|-----------------------|---------------------|----------|----------|---------|-----------------------|---------------------------|-----------|----------|-------------------------------------|--------------------|---------------------|---------------|--------------|----------|
|  |                       | Males.              | Females. | Married. | Single. | Over 16 years of age. | 16 yrs. of age and under. | Native.   | Foreign. | \$1 00 to \$4 00.                   | \$4 00 to \$12 00. | \$12 00 to \$18 00. | Over \$18 00. | Hours.       | Minutes. |
|  |                       |                     |          |          |         |                       |                           |           |          |                                     |                    |                     |               |              |          |
| Dairies .....                                  | 7                     | 10                  | 2        | 3        | 9       | 10                    | 2                         | 10        | 2        | 1                                   | 11                 |                     |               | 10           | 53       |
| Dentists' offices .....                        | 6                     | 7                   | 1        | 1        | 7       | 8                     |                           | 8         |          | 2                                   | 3                  | 3                   |               | 8            | 51       |
| Draying .....                                  | 16                    | 52                  |          | 21       | 29      | 52                    |                           | 38        | 11       |                                     | 52                 |                     |               | 10           | 19       |
| Dressmaking .....                              | 15                    |                     | 53       | 2        | 39      | 49                    | 2                         | 38        | 3        | 28                                  | 21                 |                     |               | 9            | 48       |
| Drugs .....                                    | 420                   | 750                 | 44       | 210      | 555     | 729                   | 55                        | 639       | 125      | 133                                 | 493                | 107                 | 33            | 12           | 38       |
| Dry-goods and carpets ..                       | 312                   | 1,105               | 605      | 465      | 1,189   | 1,578                 | 111                       | 1,357     | 310      | 245                                 | 1,119              | 239                 | 69            | 11           | 47       |
| Dyers .....                                    | 7                     | 17                  | 7        | 11       | 13      | 24                    |                           | 10        | 14       | 1                                   | 20                 | 3                   |               | 10           |          |
| Electric light companies.                      | 6                     | 71                  |          | 40       | 31      | 71                    |                           | 61        | 10       | 1                                   | 43                 | 22                  | 5             | 10           | 25       |
| Engraving .....                                | 3                     | 13                  |          | 4        | 7       | 12                    | 1                         | 13        |          | 3                                   | 1                  | 7                   | 1             | 36           |          |
| Express companies .....                        | 22                    | 272                 | 1        | 129      | 120     | 273                   |                           | 223       | 47       | 2                                   | 97                 | 148                 | 25            | 10           | 56       |
| Fire departments .....                         | 1                     | 28                  |          | 18       | 10      | 28                    |                           | 20        | 8        |                                     | 13                 | 12                  | 3             |              |          |
| Feathers and feather renovating ..             | 2                     | 5                   | 8        | 3        | 10      | 13                    |                           | 2         | 11       | 9                                   | 3                  |                     | 1             | 10           |          |
| Fishing .....                                  | 28                    | 229                 | 8        | 61       | 62      | 219                   | 8                         | 88        | 33       | 8                                   | 202                | 21                  | 1             | 11           | 40       |
| Florists .....                                 | 2                     | 7                   |          | 3        | 4       | 7                     |                           |           | 6        | 1                                   | 4                  | 1                   | 1             | 11           | 43       |
| Flooring dealers .....                         | 1                     | 1                   |          | 1        |         | 1                     |                           |           | 1        |                                     | 1                  |                     |               | 10           |          |
| Flour, feed and grain .....                    | 59                    | 109                 | 3        | 53       | 53      | 109                   | 3                         | 86        | 24       | 7                                   | 103                | 1                   |               | 11           | 50       |
| Forwarding docks .....                         | 4                     | 21                  |          | 11       | 8       | 19                    | 2                         | 5         | 3        | 2                                   | 16                 | 2                   | 1             | 10           | 22       |
| Fruits, confectionery, canned goods, etc. .... | 44                    | 83                  | 32       | 44       | 70      | 105                   | 9                         | 94        | 18       | 22                                  | 70                 | 11                  | 12            | 11           | 13       |
| Furniture and undertaking ..                   | 166                   | 423                 | 9        | 219      | 189     | 420                   | 11                        | 280       | 150      | 24                                  | 307                | 74                  | 8             | 10           | 47       |
| Gas companies .....                            | 19                    | 126                 |          | 54       | 47      | 120                   |                           | 38        | 60       | 1                                   | 92                 | 17                  | 8             | 11           | 7        |
| General stores .....                           | 744                   | 1,646               | 231      | 826      | 1,004   | 1,744                 | 71                        | 1,435     | 385      | 188                                 | 1,179              | 323                 | 72            | 12           | 30       |
| Gold, silver and electroplating ..             | 5                     | 27                  | 8        | 17       | 18      | 35                    |                           | 31        | 4        | 2                                   | 30                 | 3                   |               | 10           |          |
| Grain elevators .....                          | 18                    | 127                 |          | 92       | 33      | 124                   |                           | 63        | 64       | 2                                   | 104                | 13                  | 4             | 9            | 59       |
| Groceries and provisions ..                    | 813                   | 1,914               | 110      | 800      | 1,120   | 1,897                 | 111                       | 1,500     | 405      | 185                                 | 1,517              | 206                 | 75            | 12           | 27       |
| Hack and 'bus lines .....                      | 10                    | 161                 |          | 91       | 70      | 157                   | 4                         | 107       | 22       | 5                                   | 153                | 3                   |               | 12           | 20       |
| Hair goods .....                               | 3                     | 1                   | 3        | 1        | 3       | 3                     | 1                         | 4         |          | 1                                   | 3                  |                     |               | 10           | 15       |
| Hardware, stoves and tinware .....             | 411                   | 1,359               | 24       | 651      | 680     | 1,334                 | 33                        | 1,007     | 282      | 86                                  | 953                | 233                 | 74            | 11           | 2        |
| Harness and trunks .....                       | 139                   | 251                 | 1        | 129      | 87      | 242                   | 1                         | 153       | 68       | 5                                   | 220                | 19                  |               | 10           | 15       |
| Hats, caps and gents' furnishing goods .....   | 35                    | 78                  | 9        | 33       | 53      | 86                    | 1                         | 69        | 15       | 8                                   | 55                 | 14                  | 10            | 11           | 21       |
| Hotels, boarding-houses and restaurants .....  | 567                   | 1,427               | 2,461    | 531      | 3,245   | 3,719                 | 117                       | 2,463     | 1,143    | 312                                 | 3,305              | 165                 | 34            | 12           | 35       |
| House furnishing goods ..                      | 3                     | 13                  |          | 7        | 6       | 13                    |                           | 10        | 3        |                                     | 12                 | 1                   |               | 10           | 47       |
| House moving .....                             | 1                     | 4                   |          | 2        | 2       | 4                     |                           | 4         |          |                                     | 3                  | 1                   |               | 10           |          |
| Insurance, real estate and other offices ..... | 69                    | 147                 | 42       | 72       | 112     | 178                   | 11                        | 144       | 41       | 18                                  | 98                 | 44                  | 28            | 9            | 21       |
| Ice dealers .....                              | 17                    | 109                 |          | 71       | 38      | 109                   |                           | 80        | 29       | 1                                   | 83                 | 23                  | 2             | 10           | 12       |
| Jewelry .....                                  | 101                   | 170                 | 3        | 45       | 121     | 170                   | 2                         | 140       | 32       | 18                                  | 100                | 35                  | 14            | 11           | 33       |
| Junk stores .....                              | 2                     | 5                   | 4        |          | 3       | 3                     |                           |           | 3        |                                     | 9                  |                     |               | 10           |          |

TABLE NO. 41.—Continued.

| Class of Business.                              | Number in each Class. | Number of Employés. |          |          |         | Ages.                    |                              | Nativity. |          | Wages per week—<br>Number receiving |                       |                        |               | Hrs<br>per<br>day. |          |
|---|-----------------------|---------------------|----------|----------|---------|--------------------------|------------------------------|-----------|----------|-------------------------------------|-----------------------|------------------------|---------------|--------------------|----------|
|   |                       | Males.              | Females. | Married. | Single. | Over 16 years<br>of age. | 16 yrs. of age<br>and under. | Native.   | Foreign. | \$1 00 to \$4 00.                   | \$4 00 to<br>\$12 00. | \$12 00 to<br>\$18 00. | Over \$18 00. | Hours.             | Minutes. |
| Laundries .....                                 | 43                    | 74                  | 202      | 57       | 233     | 321                      | 15                           | 208       | 102      | 39                                  | 284                   | 12                     | .....         | 9                  | 52       |
| Leather and findings....                        | 4                     | 33                  | .....    | 16       | 17      | 33                       | .....                        | 15        | 18       | .....                               | 31                    | 2                      | .....         | 10                 | 4        |
| Lightning rod dealers...                        | 1                     | 3                   | .....    | .....    | .....   | 1                        | 1                            | .....     | .....    | 1                                   | .....                 | .....                  | .....         | 1                  | 10       |
| Livery stables .....                            | 183                   | 589                 | 1        | 154      | 412     | 571                      | 14                           | 405       | 154      | 26                                  | 530                   | 19                     | 6             | 12                 | 40       |
| Lumber inspectors and<br>tallymen .....         | 5                     | 38                  | .....    | 21       | 13      | 36                       | .....                        | 19        | 17       | .....                               | 1                     | 34                     | 1             | 9                  | 17       |
| Lumber yards .....                              | 79                    | 874                 | 2        | 472      | 271     | 842                      | 6                            | 383       | 421      | 28                                  | 712                   | 51                     | 11            | 10                 | 6        |
| Machinery dealers .....                         | 2                     | 7                   | .....    | 2        | 5       | 7                        | .....                        | 7         | .....    | .....                               | 5                     | 1                      | 1             | 10                 | ..       |
| Mantels and grates .....                        | 1                     | 10                  | .....    | 4        | 6       | 10                       | .....                        | 2         | 8        | .....                               | 8                     | 2                      | .....         | 10                 | ..       |
| Markets .....                                   | 12                    | 80                  | 1        | 35       | 24      | 80                       | 1                            | 51        | 10       | 2                                   | 62                    | 5                      | 12            | 10                 | 45       |
| Meat markets and<br>butchers .....              | 317                   | 688                 | 16       | 294      | 368     | 653                      | 35                           | 412       | 283      | 57                                  | 559                   | 68                     | 11            | 13                 | 12       |
| Millinery .....                                 | 166                   | 80                  | 407      | 53       | 391     | 457                      | 26                           | 390       | 67       | 148                                 | 292                   | 16                     | 13            | 10                 | 32       |
| Musical instruments....                         | 16                    | 83                  | 9        | 57       | 32      | 85                       | 4                            | 73        | 16       | 10                                  | 34                    | 32                     | 13            | 10                 | 50       |
| News depots .....                               | 7                     | 13                  | 3        | 1        | 15      | 9                        | 7                            | 16        | .....    | 11                                  | 5                     | .....                  | .....         | 10                 | 34       |
| Notions and fancy goods                         | 69                    | 159                 | 179      | 60       | 219     | 292                      | 44                           | 222       | 35       | 125                                 | 178                   | 17                     | 14            | 11                 | 7        |
| Oils .....                                      | 9                     | 57                  | .....    | 31       | 26      | 56                       | 1                            | 35        | 6        | 1                                   | 27                    | 21                     | 9             | 10                 | 15       |
| Painting, paper hanging<br>and decorating ..... | 60                    | 519                 | 2        | 235      | 156     | 515                      | 4                            | 258       | 152      | 19                                  | 292                   | 196                    | 7             | 10                 | ..       |
| Paints .....                                    | 8                     | 67                  | 1        | 43       | 25      | 66                       | 2                            | 36        | 13       | 2                                   | 49                    | 13                     | 3             | 10                 | 9        |
| Paper carriers .....                            | 3                     | 31                  | .....    | .....    | 31      | .....                    | 31                           | 28        | 3        | 31                                  | .....                 | .....                  | .....         | 2                  | 47       |
| Paper dealers .....                             | 13                    | 52                  | 5        | 36       | 21      | 56                       | 1                            | 30        | 10       | 5                                   | 28                    | 14                     | 10            | 10                 | 11       |
| Paper pattern dealers...                        | 1                     | 1                   | 4        | .....    | 5       | 4                        | 1                            | 5         | .....    | 1                                   | 4                     | .....                  | .....         | 9                  | ..       |
| Patterns and models....                         | 1                     | 1                   | .....    | .....    | 1       | 1                        | .....                        | .....     | 1        | .....                               | 1                     | .....                  | .....         | 10                 | ..       |
| Peddlers and peddlers'<br>supplies .....        | 3                     | 42                  | 10       | 3        | 5       | 42                       | .....                        | 42        | .....    | 3                                   | 49                    | .....                  | .....         | 10                 | ..       |
| Photographs and por-<br>traits .....            | 31                    | 45                  | 27       | 15       | 43      | 68                       | 1                            | 46        | 12       | 6                                   | 55                    | 2                      | 7             | 9                  | 25       |
| Photographers' supplies                         | 1                     | 3                   | .....    | .....    | 3       | 2                        | 1                            | 1         | 2        | 1                                   | 1                     | 1                      | .....         | 9                  | 30       |
| Pictures and frames....                         | 5                     | 29                  | .....    | 10       | 19      | 28                       | 1                            | 17        | 12       | 2                                   | 22                    | 5                      | .....         | 10                 | 15       |
| Plasterers and masons...                        | 20                    | 250                 | .....    | 138      | 103     | 242                      | .....                        | 89        | 84       | 4                                   | 128                   | 61                     | 57            | 10                 | ..       |
| Plumbing and gas fit-<br>ting .....             | 50                    | 444                 | .....    | 152      | 291     | 439                      | 2                            | 271       | 117      | 56                                  | 241                   | 136                    | 5             | 10                 | 3        |
| Pork and meat packing                           | 10                    | 172                 | 1        | 60       | 28      | 170                      | 2                            | 29        | 33       | 1                                   | 153                   | 14                     | 4             | 10                 | 8        |
| Postoffices .....                               | 24                    | 22                  | 16       | 7        | 31      | 37                       | 1                            | 34        | 2        | 6                                   | 26                    | 4                      | 1             | 12                 | 40       |
| Printing, publishing and<br>binding .....       | 282                   | 1,694               | 162      | 438      | 960     | 1,556                    | 181                          | 1,106     | 291      | 278                                 | 879                   | 506                    | 124           | 10                 | 11       |
| Pumps and windmills...                          | 3                     | 8                   | .....    | 7        | 1       | 8                        | .....                        | 8         | .....    | .....                               | 8                     | .....                  | .....         | 10                 | 15       |
| Rag dealers .....                               | 1                     | 10                  | 30       | 25       | 15      | 40                       | .....                        | .....     | 40       | 25                                  | 13                    | 2                      | .....         | 10                 | ..       |
| Railroad employés .....                         | 40                    | 1,328               | 8        | 729      | 261     | 1,316                    | 4                            | 707       | 330      | 9                                   | 932                   | 295                    | 74            | 10                 | 12       |
| Roofing .....                                   | 6                     | 88                  | .....    | 30       | 21      | 88                       | .....                        | 15        | 56       | .....                               | 76                    | 10                     | 2             | 10                 | ..       |
| Rubber goods .....                              | 1                     | 8                   | .....    | 4        | 4       | 8                        | .....                        | 8         | 5        | .....                               | 4                     | .....                  | 1             | 10                 | ..       |
| Sanitariums .....                               | 2                     | 12                  | 9        | 11       | 10      | 21                       | .....                        | 21        | .....    | 5                                   | 8                     | .....                  | 1             | 12                 | 30       |

TABLE No. 41.—Continued.

| Class of Business.                            | Number in each class. | Number of Employés. |          |          |         | Ages.                    |                              | Nativity. |          | Wages per week—<br>Number receiving |                       |                        |            | Hrs<br>per<br>day. |          |
|---|-----------------------|---------------------|----------|----------|---------|--------------------------|------------------------------|-----------|----------|-------------------------------------|-----------------------|------------------------|------------|--------------------|----------|
|   |                       | Males.              | Females. | Married. | Single. | Over 16 years<br>of age. | 16 yrs. of age<br>and under. | Native.   | Foreign. | \$1 00 to \$4 00.                   | \$4 00 to<br>\$12 00. | \$12 00 to<br>\$18 00. | Over \$18. | Hours.             | Minutes. |
| Sculptors.....                                | 2                     | 10                  | .....    | 2        | 8       | 10                       | .....                        | 7         | 3        | 2                                   | 6                     | 2                      | .....      | 10                 | ..       |
| Second-hand stores.....                       | 14                    | 27                  | 2        | 18       | 11      | 28                       | 1                            | 18        | 11       | 3                                   | 27                    | 1                      | .....      | 11                 | 33       |
| Seeds.....                                    | 4                     | 120                 | 292      | 73       | 339     | 390                      | 22                           | 316       | 92       | 231                                 | 118                   | 40                     | 21         | 9                  | 52       |
| Sewing machines.....                          | 20                    | 55                  | 18       | 33       | 28      | 72                       | 1                            | 58        | 15       | 7                                   | 51                    | 13                     | 2          | 11                 | 36       |
| Ship chandlers.....                           | 3                     | 36                  | 4        | 8        | 4       | 40                       | .....                        | 10        | 2        | 1                                   | 25                    | 8                      | 6          | 9                  | 19       |
| Ship repairing.....                           | 2                     | 52                  | .....    | .....    | 2       | 52                       | .....                        | 2         | .....    | .....                               | 49                    | 3                      | .....      | 10                 | ..       |
| Skating rinks.....                            | 3                     | 5                   | 2        | 2        | 5       | 5                        | 2                            | 7         | .....    | 4                                   | 3                     | .....                  | .....      | 6                  | 12       |
| Sporting goods.....                           | 8                     | 11                  | 1        | 3        | 9       | 11                       | 1                            | 12        | .....    | .....                               | 11                    | 1                      | .....      | 10                 | 5        |
| Stencils and stamps.....                      | 2                     | 3                   | .....    | .....    | 3       | 3                        | .....                        | 3         | .....    | .....                               | 3                     | .....                  | .....      | 10                 | ..       |
| Storage companies.....                        | 3                     | 28                  | .....    | 12       | 16      | 28                       | .....                        | 23        | 5        | 23                                  | .....                 | .....                  | 5          | 11                 | 47       |
| Straw goods.....                              | 1                     | 9                   | .....    | 7        | 2       | 9                        | .....                        | .....     | .....    | 1                                   | 3                     | 1                      | 4          | 10                 | ..       |
| Street railways.....                          | 11                    | 289                 | 2        | 167      | 121     | 288                      | 3                            | 154       | 80       | .....                               | 256                   | 30                     | 5          | 11                 | 44       |
| Subscription agencies...                      | 2                     | 38                  | 16       | 9        | 12      | 54                       | .....                        | 44        | 10       | .....                               | 16                    | 18                     | 9          | 8                  | ..       |
| Tailors.....                                  | 144                   | 573                 | 296      | 380      | 443     | 855                      | 8                            | 385       | 446      | 48                                  | 523                   | 209                    | 42         | 10                 | 32       |
| Teaming.....                                  | 2                     | 4                   | .....    | .....    | 4       | 4                        | .....                        | 2         | 2        | .....                               | 4                     | .....                  | .....      | 11                 | 30       |
| Tea, coffee, baking powder<br>and spices..... | 31                    | 111                 | 17       | 34       | 93      | 114                      | 14                           | 95        | 30       | 34                                  | 68                    | 17                     | 8          | 10                 | 36       |
| Telegraph messengers...                       | 1                     | 12                  | .....    | 2        | 10      | 5                        | 7                            | 11        | 1        | 9                                   | 2                     | .....                  | 1          | ..                 | ..       |
| Telegraph and telephone<br>companies.....     | 22                    | 165                 | 59       | 43       | 181     | 168                      | 56                           | 194       | 30       | 84                                  | 97                    | 30                     | 13         | 10                 | 19       |
| Train newsboys.....                           | 1                     | 19                  | .....    | .....    | .....   | 15                       | 4                            | 19        | .....    | .....                               | 19                    | .....                  | .....      | 12                 | ..       |
| Umbrellas and parasols.                       | 1                     | 4                   | 6        | 10       | .....   | 10                       | .....                        | 10        | .....    | 3                                   | 7                     | .....                  | .....      | 10                 | ..       |
| Vessels and tugs.....                         | 33                    | 500                 | 5        | 142      | 177     | 449                      | 2                            | 148       | 144      | 6                                   | 290                   | 117                    | 89         | 11                 | 55       |
| Well drivers.....                             | 1                     | 2                   | .....    | 1        | 1       | 2                        | .....                        | 2         | .....    | .....                               | 2                     | .....                  | .....      | 10                 | ..       |
| Wholesale liquor stores.                      | 4                     | 20                  | .....    | 13       | 7       | 20                       | .....                        | 12        | 8        | .....                               | 6                     | 5                      | 9          | 10                 | ..       |
| Woodenware.....                               | 1                     | 1                   | .....    | .....    | 1       | 1                        | .....                        | 1         | .....    | .....                               | 1                     | .....                  | .....      | 10                 | ..       |
| Wool, hides and pelts...                      | 14                    | 78                  | .....    | 64       | 15      | 77                       | 1                            | 25        | 36       | 2                                   | 55                    | 7                      | 12         | 10                 | 4        |



**TABLE NO. 42.—Showing by Counties the Number of Business Houses (other than manufacturing) in each County and in the State; the Number of Male and Female employes; Number Married and Single; Number over 16 years of age; Number 16 years and under; Nativity; Number receiving \$1 to \$4, \$4 to \$12, \$12 to \$18 and over \$18 per Week, and the Average hours worked per day, as reported by the Supervisors.**

| Counties.        | Business Houses reported in each County. | Number of Employes. |          | Civil Condition. |         | Ages.              |                 | Nativity. |          | Wages per week—Number receiving |              |               |            | Hrs per Day. |          |
|------------------|--|---------------------|----------|------------------|---------|--------------------|-----------------|-----------|----------|---------------------------------|--------------|---------------|------------|--------------|----------|
|                  |  | Males.              | Females. | Married.         | Single. | 16 years and over. | Under 16 years. | Native.   | Foreign. | \$1 to \$4.                     | \$4 to \$12. | \$12 to \$18. | Over \$18. | Hours.       | Minutes. |
| State.....       | 7,594                                    | 20,055              | 5,900    | 12,881           | 18,224  | 32,847             | 1,247           | 21,053    | 9,608    | 3,062                           | 24,247       | 5,035         | 1,611      | 10           | 57       |
| Alcona.....      | 3  | 8                   | .....    | 4                | 4       | 8                  | .....           | 8         | .....    | .....                           | 6            | 2             | .....      | 12           | 30       |
| Allegan.....     | 61                                       | 91                  | 28       | 60               | 49      | 114                | 4               | 101       | 9        | 20                              | 87           | 4             | 1          | 12           | 19       |
| Alpena.....      | 99                                       | 396                 | 69       | 175              | 289     | 456                | 7               | 244       | 248      | 20                              | 371          | 48            | 16         | 11           | 32       |
| Antrim.....      | 36                                       | 62                  | 30       | 30               | 54      | 71                 | 3               | 60        | 12       | 9                               | 49           | 17            | 6          | 11           | 26       |
| Arenac.....      | 6  | 84                  | 4        | 2                | 11      | 87                 | 1               | 9         | 4        | 5                               | 83           | .....         | .....      | 11           | 29       |
| Baraga.....      | 4  | 12                  | 1        | 3                | 10      | 12                 | 1               | 8         | 5        | 2                               | 4            | 7             | .....      | 14           | ..       |
| Barry.....       | 60                                       | 84                  | 21       | 38               | 56      | 98                 | 4               | 86        | 6        | 18                              | 71           | 11            | .....      | 12           | 10       |
| Bay.....         | 244                                      | 994                 | 214      | 409              | 782     | 1,159              | 44              | 813       | 377      | 81                              | 855          | 194           | 69         | 10           | 11       |
| Benzie.....      | 15                                       | 45                  | 1        | 11               | 35      | 43                 | 2               | 28        | 18       | 7                               | 35           | 2             | 2          | 12           | 22       |
| Berrien.....     | 241                                      | 601                 | 128      | 288              | 435     | 709                | 11              | 583       | 138      | 78                              | 553          | 66            | 12         | 12           | 9        |
| Branch.....      | 138                                      | 298                 | 79       | 149              | 214     | 367                | 5               | 317       | 38       | 37                              | 295          | 12            | 3          | 12           | 24       |
| Calhoun.....     | 138                                      | 476                 | 82       | 240              | 262     | 493                | 10              | 429       | 73       | 37                              | 375          | 93            | 10         | 11           | 23       |
| Cass.....        | 79                                       | 124                 | 38       | 73               | 84      | 155                | 2               | 142       | 14       | 18                              | 121          | 14            | 3          | 12           | 23       |
| Charlevoix.....  | 13                                       | 27                  | 11       | 11               | 27      | 33                 | 5               | 28        | 10       | .....                           | 30           | 8             | .....      | 11           | 53       |
| Cheboygan.....   | 5  | 39                  | 11       | 18               | 32      | 47                 | .....           | 46        | 4        | .....                           | 45           | 2             | 3          | 12           | ..       |
| Chippewa.....    | 14                                       | 148                 | 9        | 32               | 25      | 149                | 7               | 30        | 27       | 9                               | 143          | 4             | 1          | 12           | 2        |
| Clare.....       | 18                                       | 73                  | 11       | 15               | 69      | 83                 | 1               | 57        | 27       | .....                           | 78           | 5             | 1          | 13           | 26       |
| Clinton.....     | 82                                       | 154                 | 50       | 88               | 104     | 183                | 15              | 179       | 13       | 28                              | 152          | 16            | 2          | 12           | 11       |
| Delta.....       | 53                                       | 102                 | 29       | 22               | 85      | 128                | 3               | 71        | 59       | 11                              | 83           | 33            | 3          | 14           | 20       |
| Eaton.....       | 151                                      | 377                 | 89       | 180              | 193     | 445                | 21              | 376       | 31       | 32                              | 375          | 34            | 7          | 11           | 36       |
| Emmet.....       | 42                                       | 74                  | 39       | 40               | 59      | 107                | 6               | 102       | 11       | 7                               | 98           | 7             | .....      | 11           | 48       |
| Genesee.....     | 146                                      | 329                 | 117      | 141              | 290     | 433                | 11              | 393       | 37       | 53                              | 343          | 45            | 3          | 11           | 3        |
| Grand Traverse.. | 64                                       | 344                 | 61       | 159              | 238     | 394                | 10              | 273       | 127      | 10                              | 274          | 109           | 12         | 10           | 39       |
| Gratiot.....     | 95                                       | 221                 | 63       | 106              | 106     | 276                | 7               | 185       | 24       | 26                              | 230          | 24            | 3          | 11           | 35       |
| Hillsdale.....   | 143                                      | 374                 | 87       | 220              | 229     | 449                | 7               | 397       | 53       | 44                              | 340          | 20            | 19         | 12           | ..       |
| Houghton.....    | 128                                      | 816                 | 53       | 371              | 476     | 842                | 27              | 271       | 590      | 23                              | 545          | 249           | 52         | 12           | 55       |
| Huron.....       | 50                                       | 100                 | 31       | 47               | 78      | 119                | 6               | 78        | 48       | 35                              | 76           | 13            | 2          | 12           | 29       |
| Ingham.....      | 240                                      | 657                 | 208      | 359              | 437     | 846                | 14              | 656       | 174      | 74                              | 666          | 87            | 18         | 10           | 50       |
| Ionia.....       | 143                                      | 250                 | 66       | 160              | 147     | 306                | 4               | 264       | 42       | 17                              | 152          | 61            | 7          | 10           | 17       |
| Iosco.....       | 66                                       | 355                 | 25       | 83               | 147     | 374                | 6               | 121       | 123      | 2                               | 320          | 47            | 10         | 10           | 28       |
| Isabella.....    | 34                                       | 76                  | 19       | 30               | 51      | 77                 | 4               | 72        | 9        | 3                               | 74           | 4             | 2          | 11           | 47       |
| Jackson.....     | 303                                      | 1,306               | 229      | 701              | 800     | 1,460              | 74              | 1,051     | 428      | 112                             | 1,120        | 228           | 67         | 10           | 41       |
| Kalamazoo.....   | 215                                      | 817                 | 170      | 341              | 435     | 771                | 19              | 638       | 141      | 115                             | 544          | 125           | 28         | 11           | ..       |
| Kalkaska.....    | 13                                       | 14                  | .....    | 7                | 7       | 12                 | 1               | 9         | 4        | 1                               | 11           | 2             | .....      | 11           | 9        |
| Kent.....        | 564                                      | 3,222               | 576      | 1,545            | 1,722   | 3,645              | 118             | 2,458     | 936      | 248                             | 2,577        | 655           | 304        | 11           | 10       |

TABLE No. 42.—Continued.

| Counties.         | Business Houses reported in each County. | Number of Employés. |          | Civil Condition. |         | Ages.              |                 | Nativity. |          | Wages per week—Number receiving |              |               |            | Hrs. per Day. |          |
|-------------------|--|---------------------|----------|------------------|---------|--------------------|-----------------|-----------|----------|---------------------------------|--------------|---------------|------------|---------------|----------|
|                   |  | Males.              | Females. | Married.         | Single. | 16 years and over. | Under 16 years. | Native.   | Foreign. | \$1 to \$4.                     | \$4 to \$12. | \$12 to \$18. | Over \$18. | Hours.        | Minutes. |
| Keweenaw.....     | 11                                       | 41                  | 5        | 18               | 24      | 46                 | -----           | 19        | 16       | -----                           | 27           | 15            | 4          | 10            | 44       |
| Lake.....         | 9  | 49                  | 3        | 25               | 27      | 49                 | -----           | 25        | 27       | 1                               | 40           | 5             | 3          | 11            | 43       |
| Lapeer.....       | 64                                       | 115                 | 21       | 52               | 84      | 122                | 14              | 109       | 27       | 6                               | 117          | 11            | 2          | 12            | 58       |
| Leelanaw.....     | 3  | 8                   | -----    | 5                | 3       | 8                  | -----           | 8         | -----    | -----                           | 8            | -----         | -----      | 14            | -----    |
| Lenawee.....      | 205                                      | 595                 | 144      | 329              | 396     | 709                | 21              | 627       | 91       | 69                              | 564          | 65            | 29         | 11            | 19       |
| Livingston.....   | 47                                       | 118                 | 52       | 82               | 79      | 162                | 8               | 113       | 50       | 17                              | 120          | 25            | -----      | 11            | 57       |
| Mackinac.....     | 43                                       | 186                 | 18       | 78               | 126     | 202                | 2               | 112       | 92       | 3                               | 192          | 8             | 1          | 10            | 39       |
| Macomb.....       | 87                                       | 149                 | 45       | 78               | 113     | 182                | 9               | 150       | 42       | 24                              | 138          | 4             | 4          | 11            | 41       |
| Manistee.....     | 87                                       | 195                 | 64       | 82               | 174     | 236                | 19              | 149       | 109      | 26                              | 193          | 32            | 5          | 11            | 16       |
| Marquette.....    | 53                                       | 103                 | 24       | 28               | 86      | 110                | 3               | 60        | 56       | 25                              | 71           | 29            | 2          | 12            | 8        |
| Mason.....        | 101                                      | 223                 | 63       | 115              | 149     | 254                | 4               | 175       | 91       | 31                              | 162          | 59            | 13         | 11            | 10       |
| Mecosta.....      | 135                                      | 324                 | 110      | 174              | 237     | 425                | 8               | 241       | 144      | 26                              | 339          | 48            | 15         | 11            | 20       |
| Menominee.....    | 62                                       | 155                 | 44       | 52               | 123     | 162                | 12              | 82        | 94       | 35                              | 102          | 20            | 24         | 11            | 45       |
| Midland.....      | 25                                       | 49                  | 17       | 19               | 42      | 66                 | -----           | 51        | 15       | 1                               | 45           | 16            | 3          | 12            | 35       |
| Missaukee.....    | 1  | 3                   | -----    | 1                | 2       | 3                  | -----           | 2         | 1        | -----                           | 2            | 1             | -----      | 16            | -----    |
| Monroe.....       | 103                                      | 230                 | 30       | 121              | 132     | 247                | 12              | 227       | 20       | 43                              | 156          | 14            | 3          | 13            | 11       |
| Montcalm.....     | 45                                       | 531                 | 19       | 46               | 46      | 539                | 4               | 81        | 14       | 3                               | 389          | 110           | 47         | 13            | 6        |
| Montmorency.....  | 3  | 5                   | -----    | 3                | 2       | 5                  | -----           | 2         | 3        | -----                           | 4            | 1             | -----      | 12            | -----    |
| Muskegon.....     | 224                                      | 642                 | 189      | 269              | 513     | 770                | 48              | 490       | 308      | 48                              | 595          | 158           | 16         | 12            | 43       |
| Newaygo.....      | 35                                       | 47                  | 15       | 20               | 41      | 58                 | 2               | 48        | 13       | 2                               | 40           | 12            | -----      | 13            | 18       |
| Oakland.....      | 151                                      | 359                 | 73       | 201              | 221     | 378                | 26              | 335       | 64       | 63                              | 296          | 31            | 8          | 11            | 30       |
| Oceana.....       | 17                                       | 28                  | 3        | 19               | 11      | 27                 | -----           | 30        | 1        | -----                           | 19           | 9             | -----      | 11            | 54       |
| Ogemaw.....       | 20                                       | 24                  | 6        | 10               | 20      | 29                 | 1               | 26        | 4        | 1                               | 28           | -----         | -----      | 12            | 36       |
| Ontonagon.....    | 5  | 11                  | 1        | 7                | 5       | 12                 | -----           | 10        | 2        | 1                               | 2            | 2             | -----      | 13            | 39       |
| Osceola.....      | 84                                       | 130                 | 68       | 65               | 133     | 183                | 8               | 139       | 58       | 20                              | 153          | 17            | 2          | 13            | 18       |
| Otsego.....       | 11                                       | 15                  | 17       | 4                | 27      | 30                 | 2               | 30        | 1        | 5                               | 27           | -----         | -----      | 13            | 15       |
| Ottawa.....       | 186                                      | 596                 | 88       | 328              | 315     | 624                | 26              | 292       | 324      | 101                             | 458          | 40            | 50         | 11            | 5        |
| Presque Isle..... | 8  | 9                   | 3        | 2                | 10      | 9                  | 2               | 7         | 5        | 1                               | 7            | 1             | -----      | 10            | 24       |
| Saginaw.....      | 395                                      | 1,877               | 374      | 725              | 1,488   | 2,112              | 103             | 1,416     | 796      | 166                             | 1,665        | 307           | 91         | 11            | -----    |
| Sanilac.....      | 40                                       | 67                  | 20       | 30               | 54      | 79                 | 4               | 56        | 30       | 13                              | 63           | 7             | -----      | 12            | 9        |
| Schoolcraft.....  | 19                                       | 42                  | 17       | 7                | 52      | 59                 | -----           | 22        | 37       | 12                              | 44           | 2             | -----      | 13            | 24       |
| Shiawassee.....   | 52                                       | 133                 | 48       | 59               | 97      | 147                | 8               | 130       | 27       | 14                              | 123          | 26            | 1          | 12            | 28       |
| St. Clair.....    | 170                                      | 727                 | 149      | 288              | 506     | 828                | 42              | 562       | 230      | 50                              | 632          | 100           | 19         | 10            | 56       |
| St. Joseph.....   | 90                                       | 164                 | 62       | 89               | 112     | 200                | 2               | 180       | 21       | 36                              | 158          | 11            | -----      | 12            | 54       |
| Tuscola.....      | 50                                       | 66                  | 6        | 26               | 42      | 52                 | 1               | 55        | 9        | 4                               | 61           | 2             | -----      | 12            | 21       |
| Van Buren.....    | 97                                       | 155                 | 43       | 85               | 102     | 179                | 8               | 173       | 18       | 12                              | 124          | 17            | 6          | 12            | 9        |
| Washtenaw.....    | 218                                      | 797                 | 82       | 321              | 414     | 846                | 32              | 575       | 260      | 92                              | 706          | 65            | 5          | 11            | 16       |
| Wayne.....        | 894                                      | 6,882               | 1,306    | 2,837            | 4,112   | 7,652              | 359             | 3,620     | 2,515    | 926                             | 5,106        | 1,509         | 586        | 10            | 12       |
| Wexford.....      | 38                                       | 85                  | 22       | 32               | 62      | 95                 | 7               | 71        | 33       | 3                               | 90           | 8             | 6          | 12            | 57       |











OCT 6 1887

~~DEC 29 1888~~

~~JUN 1 1889~~



